US009483904B2

(12) **United States Patent**
Kitamura et al.

(10) **Patent No.: US 9,483,904 B2**
(45) **Date of Patent: Nov. 1, 2016**

(54) **GAMING MACHINE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 116 days.

(21) Appl. No.: **14/486,352**

(22) Filed: **Sep. 15, 2014**

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(30) **Foreign Application Priority Data**

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(51) **Int. Cl.**
G06F 19/00 (2011.01)
G07F 17/32 (2006.01)
G07F 17/34 (2006.01)

(52) **U.S. Cl.**
CPC ***G07F 17/3213*** (2013.01); ***G07F 17/34*** (2013.01)

(58) **Field of Classification Search**
None
See application file for complete search history.

(56) **References Cited**

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2013/0217472 A1 8/2013 Kitamura et al.

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Primary Examiner — Paul A D'Agostino
(74) *Attorney, Agent, or Firm* — KMF Patent Services, PLLC; Kenneth M. Fagin; S. Peter Konzel

(57) **ABSTRACT**

A gaming machine capable of realizing game patterns differing from one another in a bonus game is provided. A main CPU **222** determines symbols to be rearranged by conducting a lottery based on a first symbol determination table in which in free games, probabilities, with each of which predetermined symbols (BONUS symbols) are rearranged on a particular condition (a condition that three or more BONUS symbols are rearranged in a display window **56**), are set so as to exceed a predetermined probability and in the next free games subsequent to the game in which the predetermined symbols have been rearranged on the particular condition, determines symbols to be rearranged by conducting a lottery based on a second symbol determination table in which probabilities, with each of which the predetermined symbols are rearranged on the particular condition, are set so as to less than the predetermined probability.

5 Claims, 55 Drawing Sheets

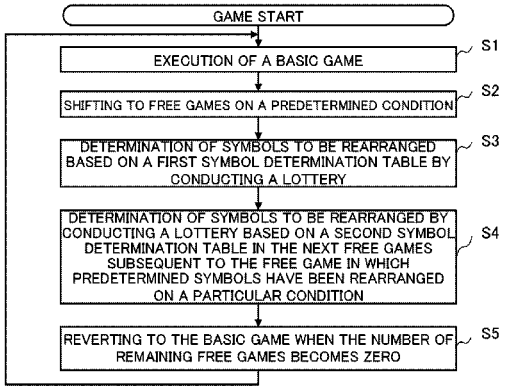


FIG. 1

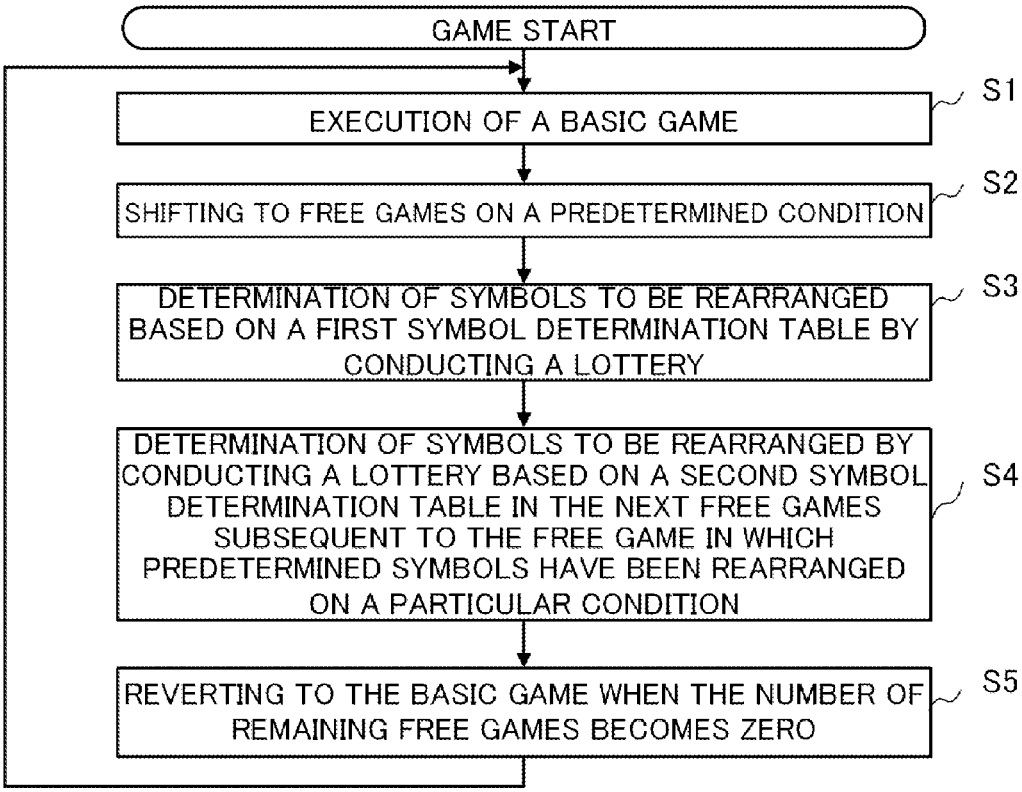

GAME START
EXECUTION OF A BASIC GAME
S1
SHIFTING TO FREE GAMES ON A PREDETERMINED CONDITION
S2
DETERMINATION OF SYMBOLS TO BE REARRANGED BASED ON A FIRST SYMBOL DETERMINATION TABLE BY CONDUCTING A LOTTERY
S3
DETERMINATION OF SYMBOLS TO BE REARRANGED BY CONDUCTING A LOTTERY BASED ON A SECOND SYMBOL DETERMINATION TABLE IN THE NEXT FREE GAMES SUBSEQUENT TO THE FREE GAME IN WHICH PREDETERMINED SYMBOLS HAVE BEEN REARRANGED ON A PARTICULAR CONDITION
S4
REVERTING TO THE BASIC GAME WHEN THE NUMBER OF REMAINING FREE GAMES BECOMES ZERO
S5

FIG. 2

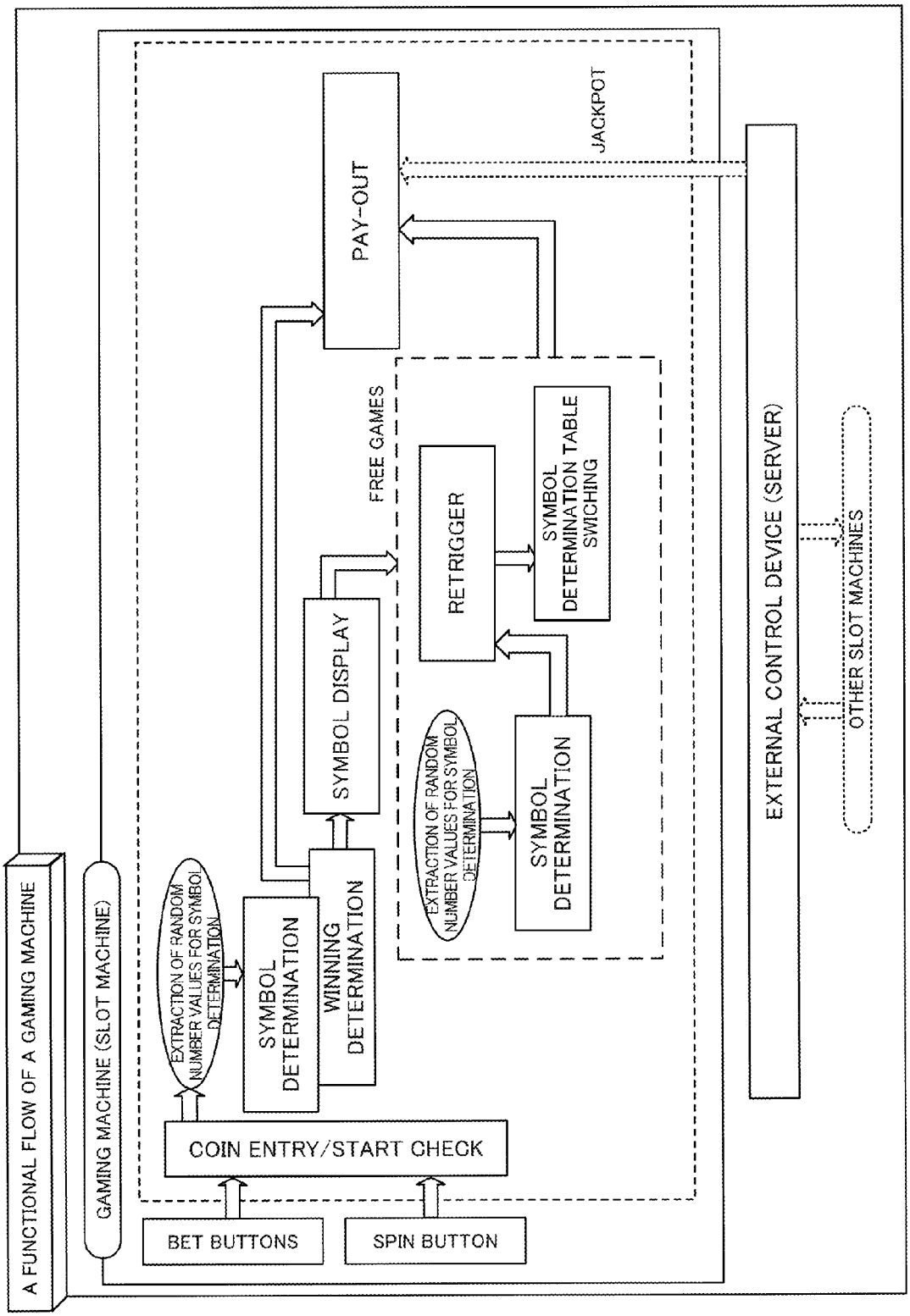

A FUNCTIONAL FLOW OF A GAMING MACHINE
GAMING MACHINE (SLOT MACHINE)
BET BUTTONS
SPIN BUTTON
COIN ENTRY/START CHECK
EXTRACTION OF RANDOM NUMBER VALUES FOR SYMBOL DETERMINATION
SYMBOL DETERMINATION
WINNING DETERMINATION
SYMBOL DISPLAY
FREE GAMES
EXTRACTION OF RANDOM NUMBER VALUES FOR SYMBOL DETERMINATION
SYMBOL DETERMINATION
RETRIGGER
SYMBOL DETERMINATION TABLE SWICHING
PAY-OUT
JACKPOT
EXTERNAL CONTROL DEVICE (SERVER)
OTHER SLOT MACHINES

FIG. 3

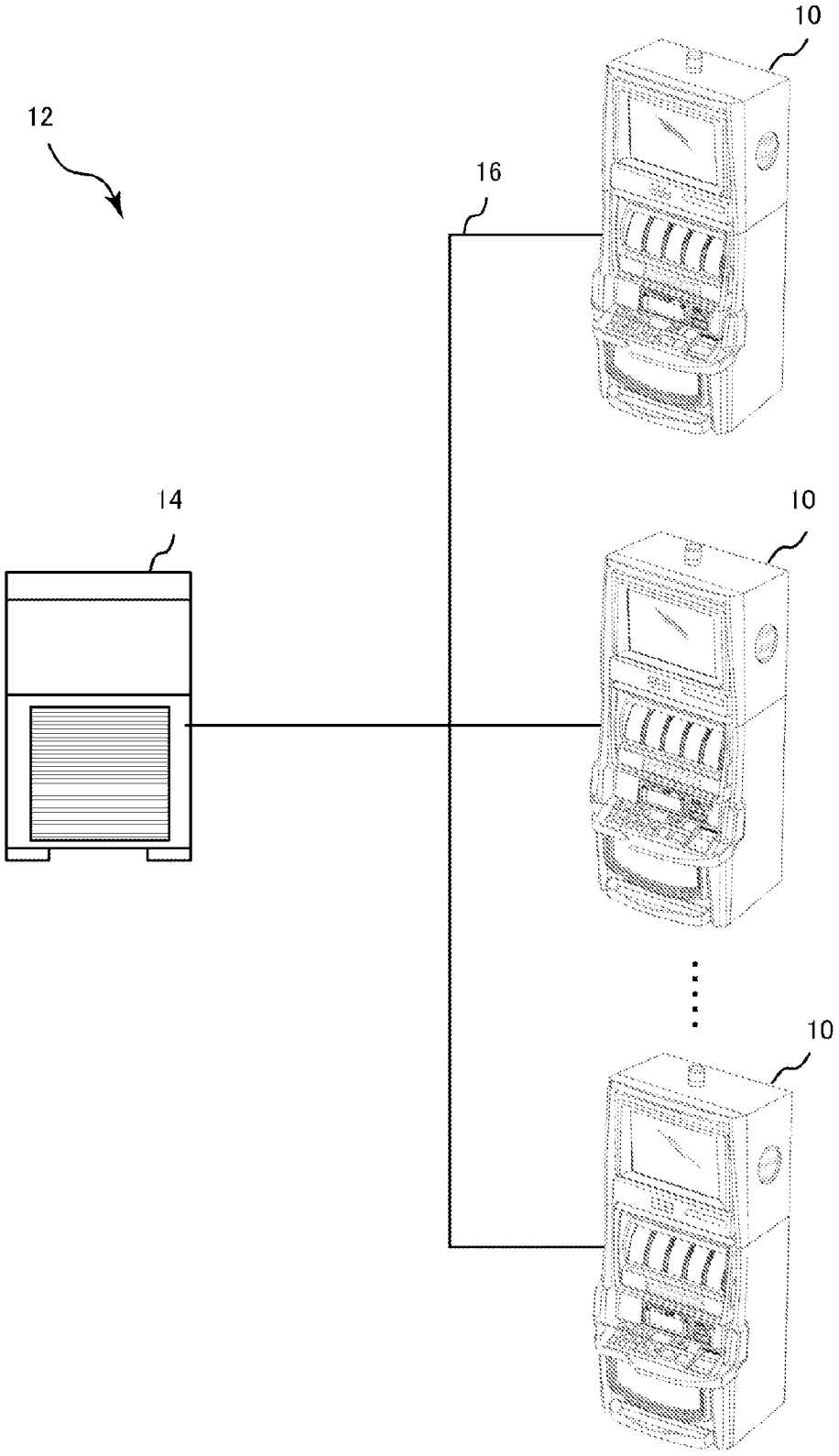


FIG. 4

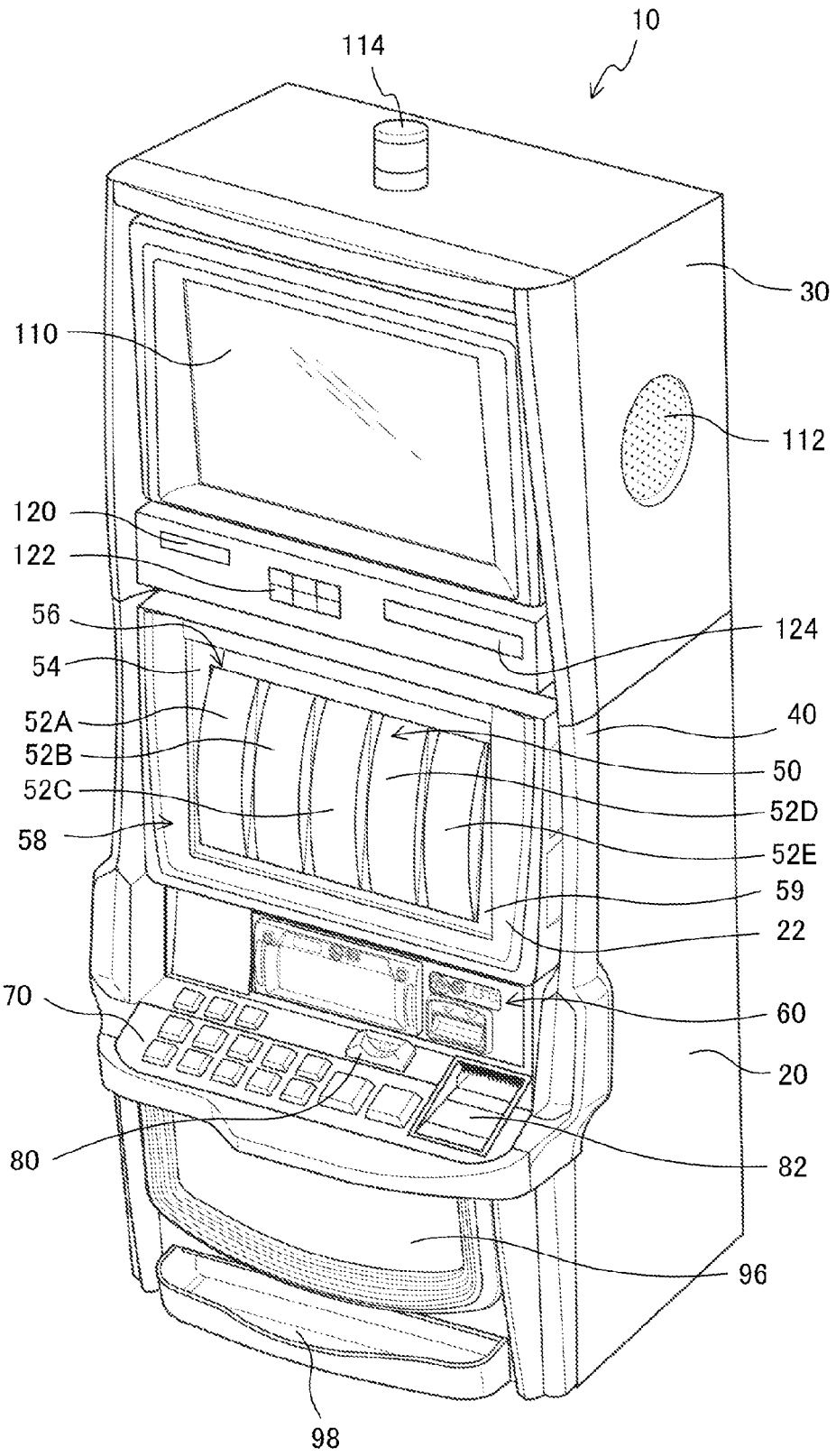

10
114
30
110
112
120
122
56
124
54
40
52A
52B
50
52C
52D
58
52E
59
22
70
60
20
80
82
96
98

FIG. 5

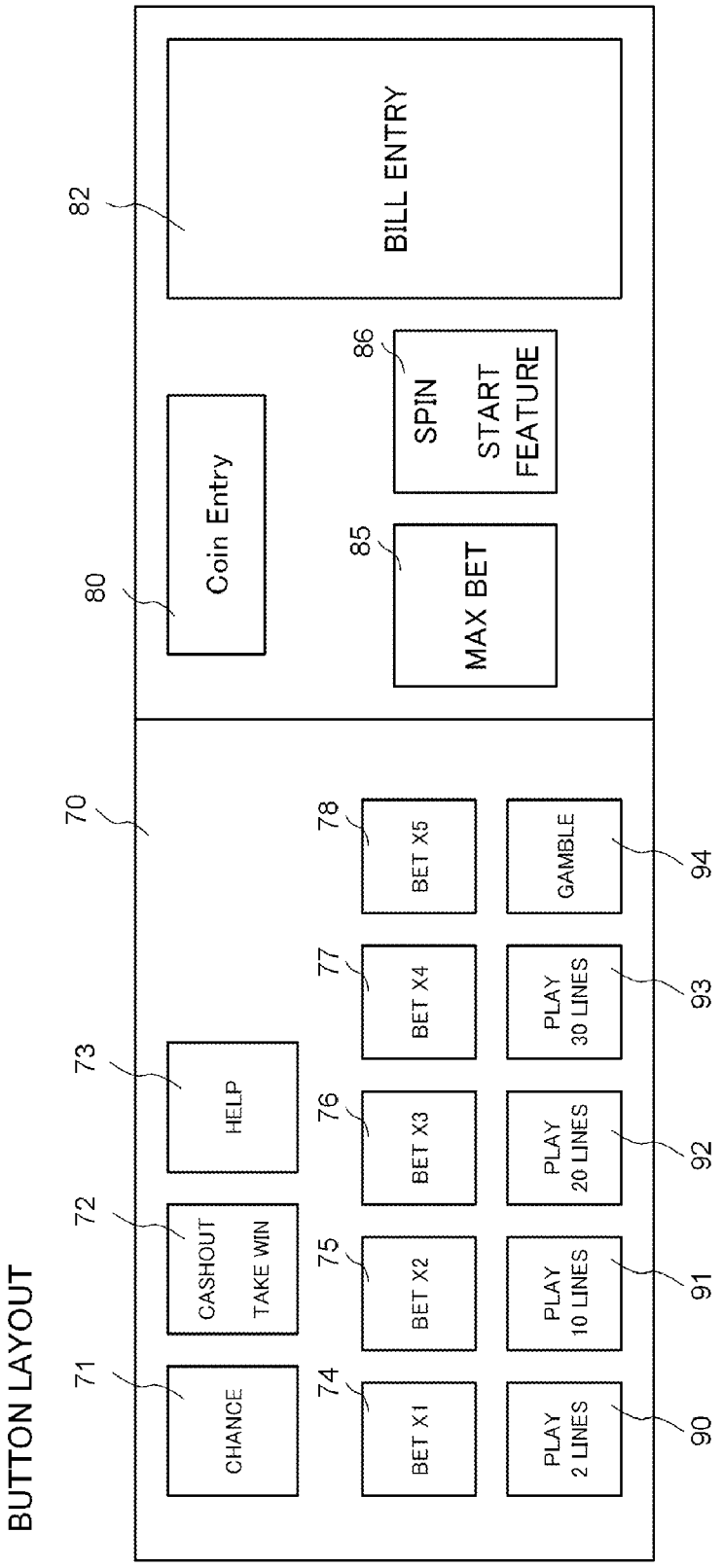

BUTTON LAYOUT
82
BILL ENTRY
80
Coin Entry
86
SPIN
START
FEATURE
85
MAX BET
70
78
BET X5
GAMBLE
94
77
BET X4
PLAY
30 LINES
93
73
HELP
76
BET X3
PLAY
20 LINES
92
72
CASHOUT
TAKE WIN
75
BET X2
PLAY
10 LINES
91
71
CHANCE
74
BET X1
PLAY
2 LINES
90

FIG. 6

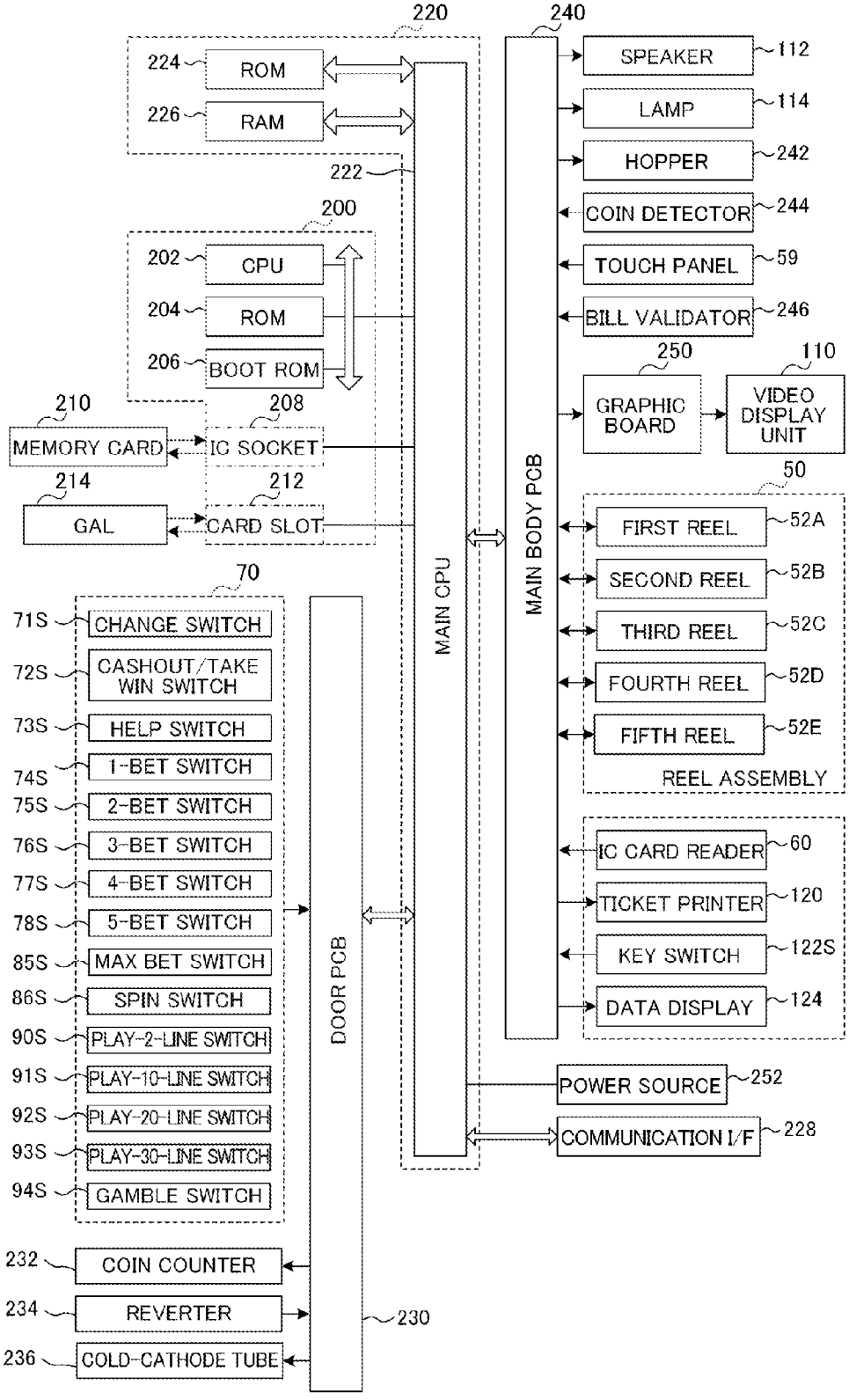

220
240
224
ROM
226
RAM
222
200
202
CPU
204
ROM
206
BOOT ROM
210
MEMORY CARD
208
IC SOCKET
214
GAL
212
CARD SLOT
70
71S
CHANGE SWITCH
72S
CASHOUT/TAKE WIN SWITCH
73S
HELP SWITCH
74S
1-BET SWITCH
75S
2-BET SWITCH
76S
3-BET SWITCH
77S
4-BET SWITCH
78S
5-BET SWITCH
85S
MAX BET SWITCH
86S
SPIN SWITCH
90S
PLAY-2-LINE SWITCH
91S
PLAY-10-LINE SWITCH
92S
PLAY-20-LINE SWITCH
93S
PLAY-30-LINE SWITCH
94S
GAMBLE SWITCH
232
COIN COUNTER
234
REVERTER
236
COLD-CATHODE TUBE
DOOR PCB
230
MAIN CPU
MAIN BODY PCB
SPEAKER
112
LAMP
114
HOPPER
242
COIN DETECTOR
244
TOUCH PANEL
59
BILL VALIDATOR
246
250
GRAPHIC BOARD
110
VIDEO DISPLAY UNIT
50
FIRST REEL
52A
SECOND REEL
52B
THIRD REEL
52C
FOURTH REEL
52D
FIFTH REEL
52E
REEL ASSEMBLY
IC CARD READER
60
TICKET PRINTER
120
KEY SWITCH
122S
DATA DISPLAY
124
POWER SOURCE
252
COMMUNICATION I/F
228

FIG. 7

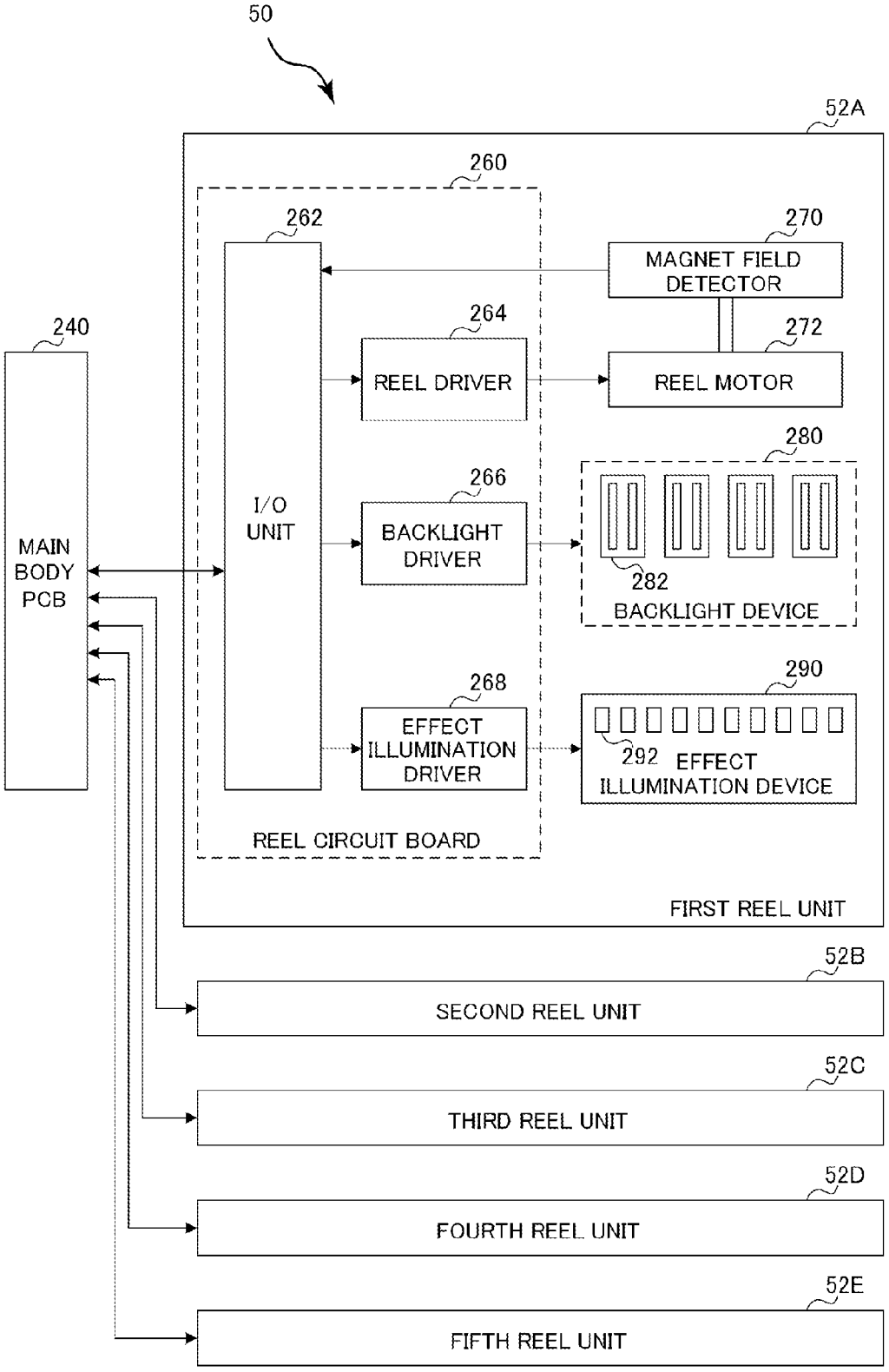

50
52A
260
262
270
MAGNET FIELD DETECTOR
264
272
240
REEL DRIVER
REEL MOTOR
280
266
I/O UNIT
BACKLIGHT DRIVER
MAIN BODY PCB
282
BACKLIGHT DEVICE
290
268
EFFECT ILLUMINATION DRIVER
292
EFFECT ILLUMINATION DEVICE
REEL CIRCUIT BOARD
FIRST REEL UNIT
52B
SECOND REEL UNIT
52C
THIRD REEL UNIT
52D
FOURTH REEL UNIT
52E
FIFTH REEL UNIT

FIG. 8

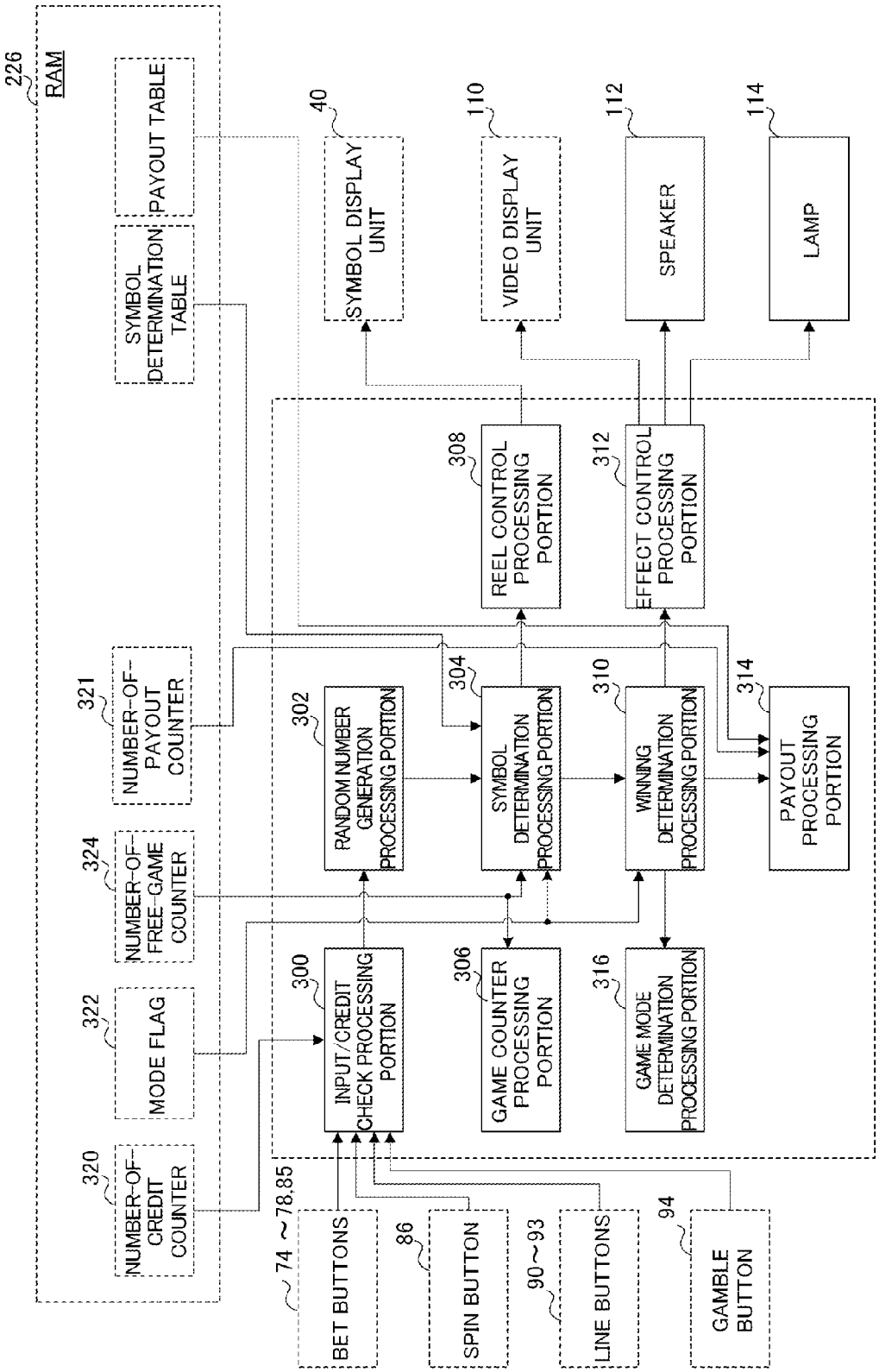

226
RAM
PAYOUT TABLE
SYMBOL DETERMINATION TABLE
40
SYMBOL DISPLAY UNIT
110
VIDEO DISPLAY UNIT
112
SPEAKER
114
LAMP
308
REEL CONTROL PROCESSING PORTION
312
EFFECT CONTROL PROCESSING PORTION
321
NUMBER-OF-PAYOUT COUNTER
302
RANDOM NUMBER GENERATION PROCESSING PORTION
304
SYMBOL DETERMINATION PROCESSING PORTION
310
WINNING DETERMINATION PROCESSING PORTION
314
PAYOUT PROCESSING PORTION
324
NUMBER-OF-FREE-GAME COUNTER
322
MODE FLAG
300
INPUT/CREDIT CHECK PROCESSING PORTION
306
GAME COUNTER PROCESSING PORTION
316
GAME MODE DETERMINATION PROCESSING PORTION
320
NUMBER-OF-CREDIT COUNTER
74 ~ 78,85
BET BUTTONS
86
SPIN BUTTON
90 ~ 93
LINE BUTTONS
94
GAMBLE BUTTON

FIG. 9

PAYLINE DEFINITION TABLE

No.	FIRST REEL	SECOND REEL	THIRD REEL	FOURTH REEL	FIFTH REEL
1	1	1	1	1	1
2	0	0	0	0	0
3	2	2	2	2	2
4	0	1	2	1	0
5	2	1	0	1	2

FIG. 10

SYMBOL DETERMINATION TABLE FOR A BASIC GAME (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	6	3BAR	4	1BAR	10	1BAR	7	2BAR	2
01	BLANK	6	BLANK	4	BLANK	10	BLANK	7	BLANK	2
02	BONUS	6	SEVEN	4	BONUS	10	SEVEN	7	BONUS	4
03	BLANK	6	BLANK	4	BLANK	10	BLANK	7	BLANK	4
04	SEVEN	6	BONUS	6	1BAR	30	BONUS	5	SEVEN	4
05	BLANK	6	BLANK	6	BLANK	36	BLANK	5	BLANK	4
06	3BAR	6	2BAR	6	2BAR	16	2BAR	5	3BAR	4
07	BLANK	6	BLANK	6	BLANK	18	BLANK	5	BLANK	4
08	BONUS	6	BONUS	4	SEVEN	12	BONUS	7	BONUS	2
09	BLANK	6	BLANK	4	BLANK	18	BLANK	7	BLANK	2
10	2BAR	32	3BAR	34	2BAR	30	1BAR	15	2BAR	34
11	BLANK	38	BLANK	34	BLANK	36	BLANK	15	BLANK	34
12	1BAR	20	1BAR	18	1BAR	4	3BAR	35	1BAR	30
13	BLANK	22	BLANK	18	BLANK	4	BLANK	35	BLANK	30
14	SEVEN	16	SEVEN	18	SEVEN	4	SEVEN	35	SEVEN	30
15	BLANK	22	BLANK	18	BLANK	4	BLANK	35	BLANK	30
16	1BAR	1	1BAR	2	3BAR	1	3BAR	7	1BAR	7
17	BLANK	1	BLANK	2	BLANK	1	BLANK	7	BLANK	7
18	CHERRY	1	CHERRY	2	CHERRY	1	CHERRY	7	CHERRY	7
19	BLANK	1	BLANK	2	BLANK	1	BLANK	7	BLANK	7
20	1BAR	32	1BAR	34	3BAR	4	3BAR	15	1BAR	34
21	BLANK	38	BLANK	34	BLANK	4	BLANK	15	BLANK	34
TOTAL		284		264		264		290		316

FIG. 11

PAYOUT TABLE (FIRST EMBODIMENT)

COMBINATION OF SYMBOLS					PAYOUT	WINNING COMBINATION
FIRST REEL	SECOND REEL	THIRD REEL	FOURTH REEL	FIFTH REEL		
SEVEN	SEVEN	SEVEN	(ANY)	(ANY)	100	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	(ANY)	200	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	SEVEN	500	SEVEN
3BAR	3BAR	3BAR	(ANY)	(ANY)	50	3BAR
3BAR	3BAR	3BAR	3BAR	(ANY)	100	3BAR
3BAR	3BAR	3BAR	3BAR	3BAR	400	3BAR
2BAR	2BAR	2BAR	(ANY)	(ANY)	40	2BAR
2BAR	2BAR	2BAR	2BAR	(ANY)	80	2BAR
2BAR	2BAR	2BAR	2BAR	2BAR	300	2BAR
1BAR	1BAR	1BAR	(ANY)	(ANY)	30	1BAR
1BAR	1BAR	1BAR	1BAR	(ANY)	60	1BAR
1BAR	1BAR	1BAR	1BAR	1BAR	250	1BAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	(ANY)	20	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	50	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	200	MIXBAR
ONE CHERRY SYMBOL					30	CHERRY
TWO CHERRY SYMBOLS					60	CHERRY
THREE CHERRY SYMBOLS					90	CHERRY
FOUR CHERRY SYMBOLS					150	CHERRY
FIVE CHERRY SYMBOLS					300	CHERRY
THREE BONUS SYMBOLS					10	BONUS
FOUR BONUS SYMBOLS					30	BONUS
FIVE BONUS SYMBOLS					150	BONUS

FIG. 12

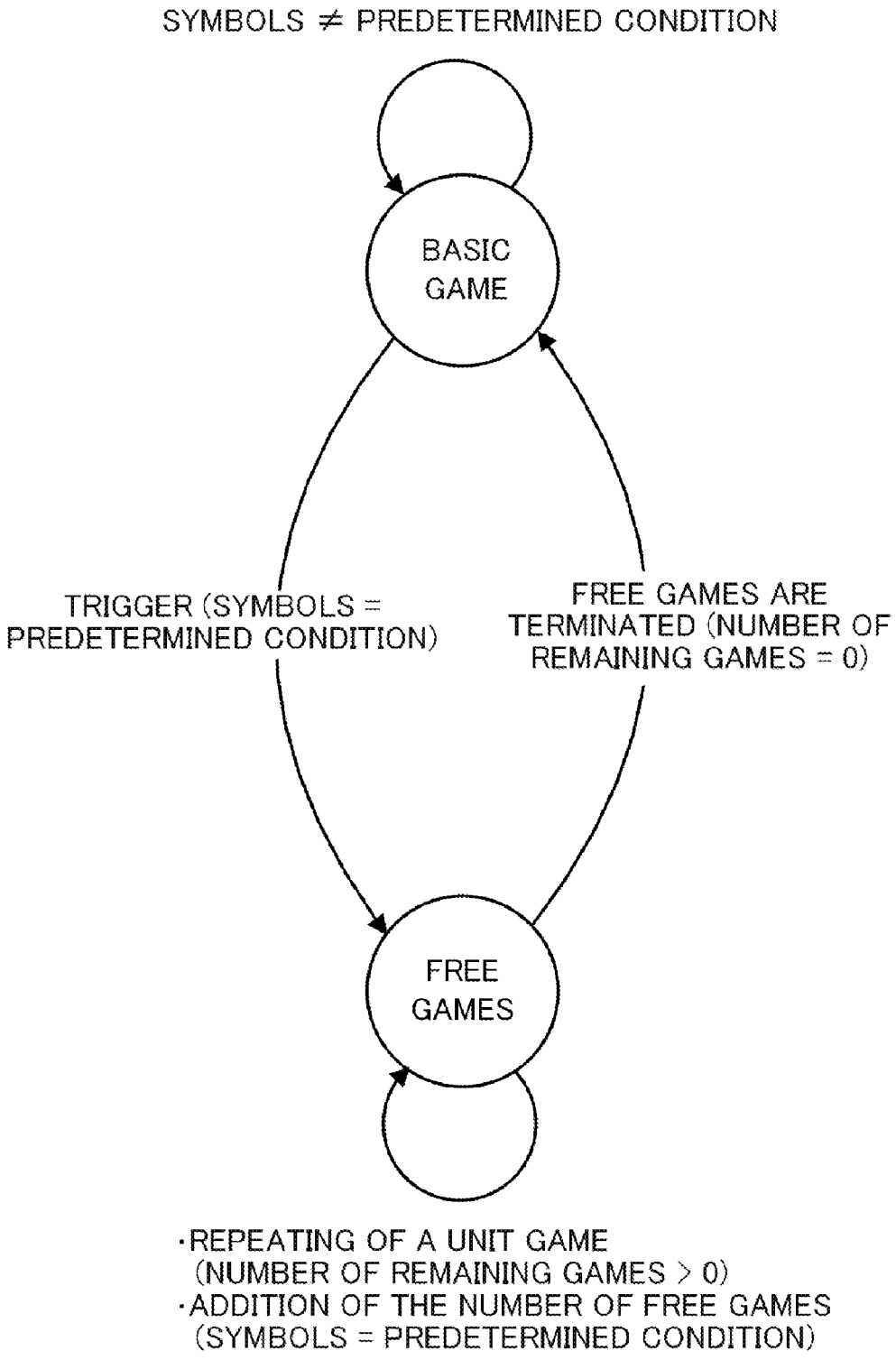

SYMBOLS ≠ PREDETERMINED CONDITION
BASIC GAME
TRIGGER (SYMBOLS = PREDETERMINED CONDITION)
FREE GAMES ARE TERMINATED (NUMBER OF REMAINING GAMES = 0)
FREE GAMES
·REPEATING OF A UNIT GAME (NUMBER OF REMAINING GAMES > 0)
·ADDITION OF THE NUMBER OF FREE GAMES (SYMBOLS = PREDETERMINED CONDITION)

FIG. 13

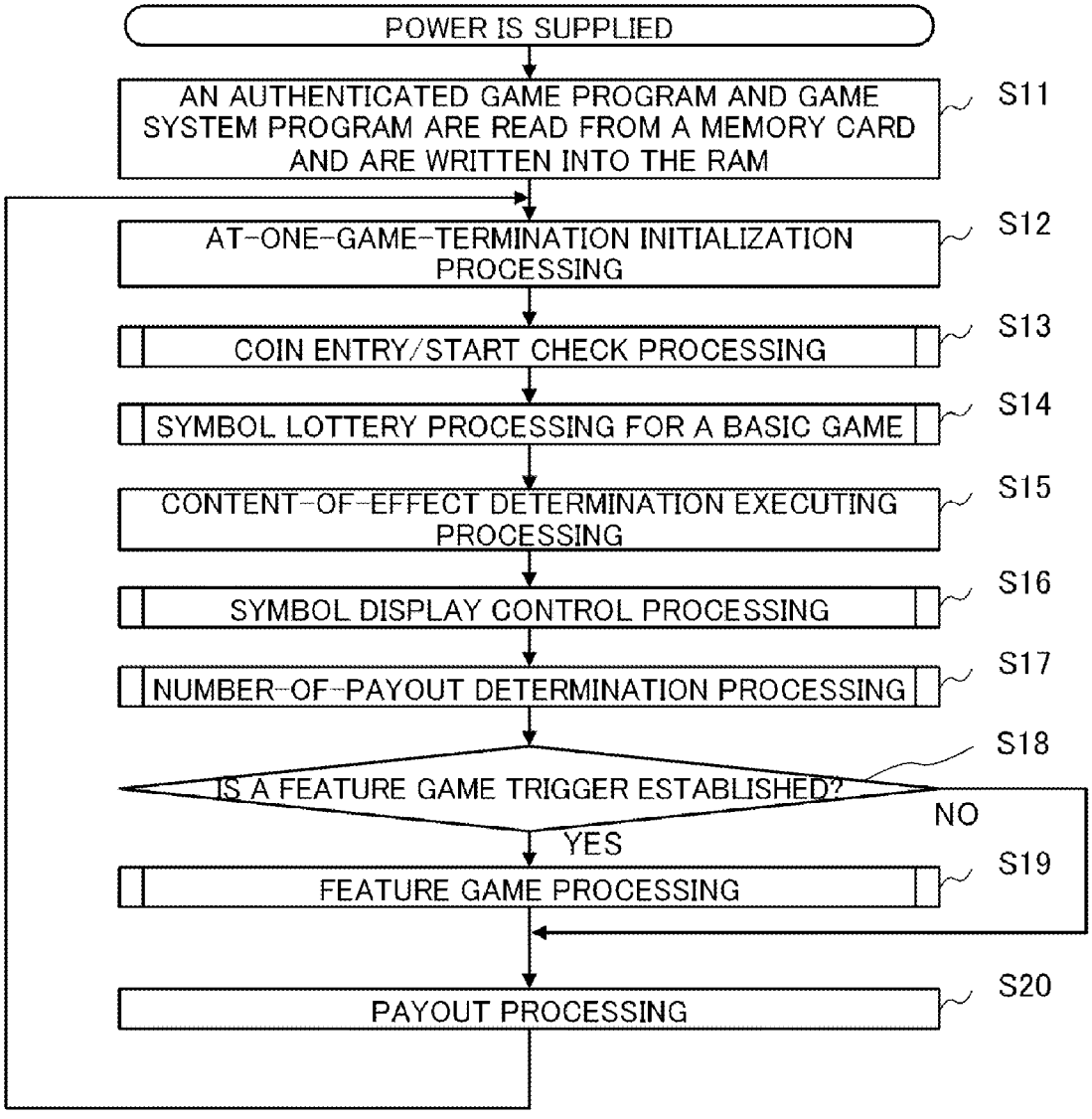

POWER IS SUPPLIED
AN AUTHENTICATED GAME PROGRAM AND GAME SYSTEM PROGRAM ARE READ FROM A MEMORY CARD AND ARE WRITTEN INTO THE RAM
S11
AT-ONE-GAME-TERMINATION INITIALIZATION PROCESSING
S12
COIN ENTRY/START CHECK PROCESSING
S13
SYMBOL LOTTERY PROCESSING FOR A BASIC GAME
S14
CONTENT-OF-EFFECT DETERMINATION EXECUTING PROCESSING
S15
SYMBOL DISPLAY CONTROL PROCESSING
S16
NUMBER-OF-PAYOUT DETERMINATION PROCESSING
S17
IS A FEATURE GAME TRIGGER ESTABLISHED?
S18
NO
YES
FEATURE GAME PROCESSING
S19
PAYOUT PROCESSING
S20

FIG. 14

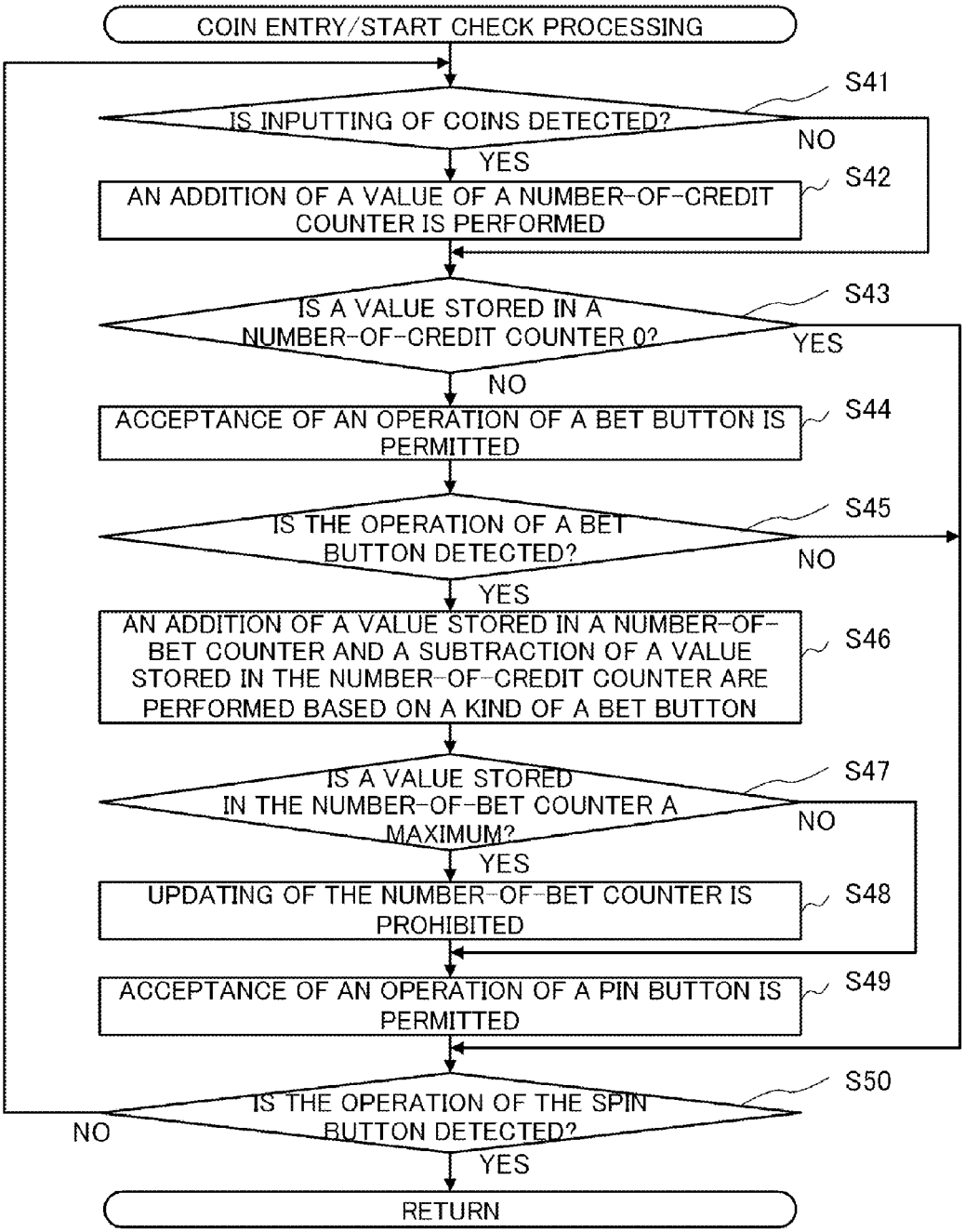

COIN ENTRY/START CHECK PROCESSING
S41
IS INPUTTING OF COINS DETECTED?
NO
YES
S42
AN ADDITION OF A VALUE OF A NUMBER-OF-CREDIT COUNTER IS PERFORMED
S43
IS A VALUE STORED IN A NUMBER-OF-CREDIT COUNTER 0?
YES
NO
S44
ACCEPTANCE OF AN OPERATION OF A BET BUTTON IS PERMITTED
S45
IS THE OPERATION OF A BET BUTTON DETECTED?
NO
YES
S46
AN ADDITION OF A VALUE STORED IN A NUMBER-OF-BET COUNTER AND A SUBTRACTION OF A VALUE STORED IN THE NUMBER-OF-CREDIT COUNTER ARE PERFORMED BASED ON A KIND OF A BET BUTTON
S47
IS A VALUE STORED IN THE NUMBER-OF-BET COUNTER A MAXIMUM?
NO
YES
S48
UPDATING OF THE NUMBER-OF-BET COUNTER IS PROHIBITED
S49
ACCEPTANCE OF AN OPERATION OF A PIN BUTTON IS PERMITTED
S50
IS THE OPERATION OF THE SPIN BUTTON DETECTED?
NO
YES
RETURN

FIG. 15

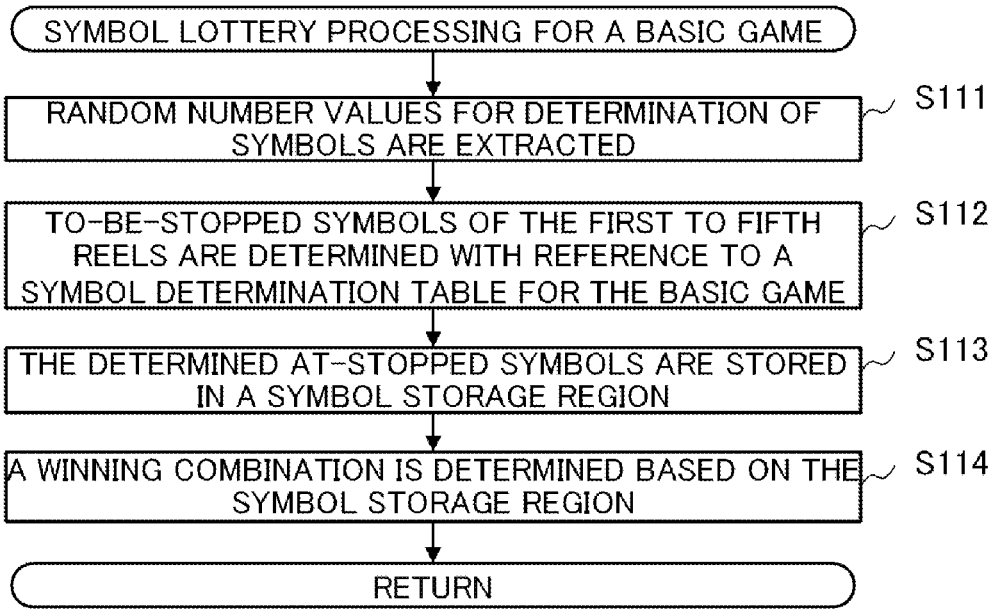

SYMBOL LOTTERY PROCESSING FOR A BASIC GAME
RANDOM NUMBER VALUES FOR DETERMINATION OF SYMBOLS ARE EXTRACTED
S111
TO-BE-STOPPED SYMBOLS OF THE FIRST TO FIFTH REELS ARE DETERMINED WITH REFERENCE TO A SYMBOL DETERMINATION TABLE FOR THE BASIC GAME
S112
THE DETERMINED AT-STOPPED SYMBOLS ARE STORED IN A SYMBOL STORAGE REGION
S113
A WINNING COMBINATION IS DETERMINED BASED ON THE SYMBOL STORAGE REGION
S114
RETURN

FIG. 16

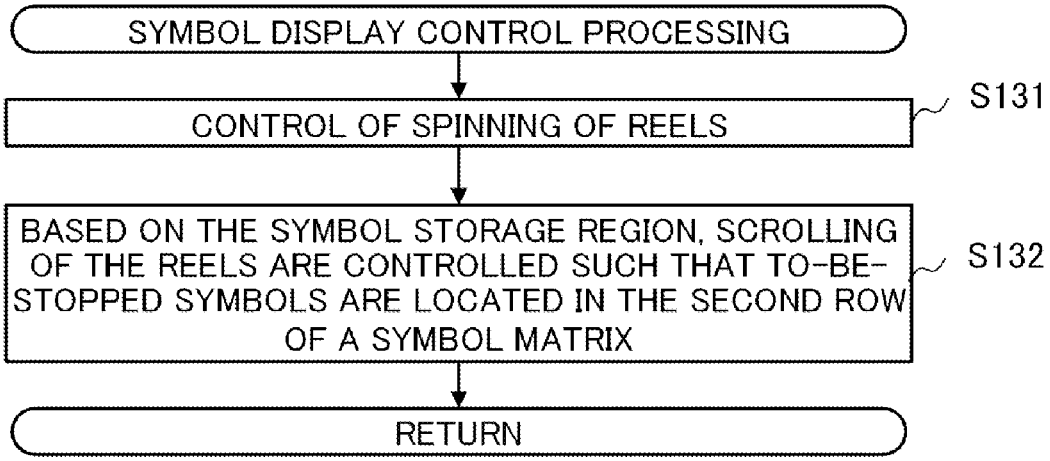

SYMBOL DISPLAY CONTROL PROCESSING
CONTROL OF SPINNING OF REELS
S131
BASED ON THE SYMBOL STORAGE REGION, SCROLLING OF THE REELS ARE CONTROLLED SUCH THAT TO-BE-STOPPED SYMBOLS ARE LOCATED IN THE SECOND ROW OF A SYMBOL MATRIX
S132
RETURN

FIG. 17

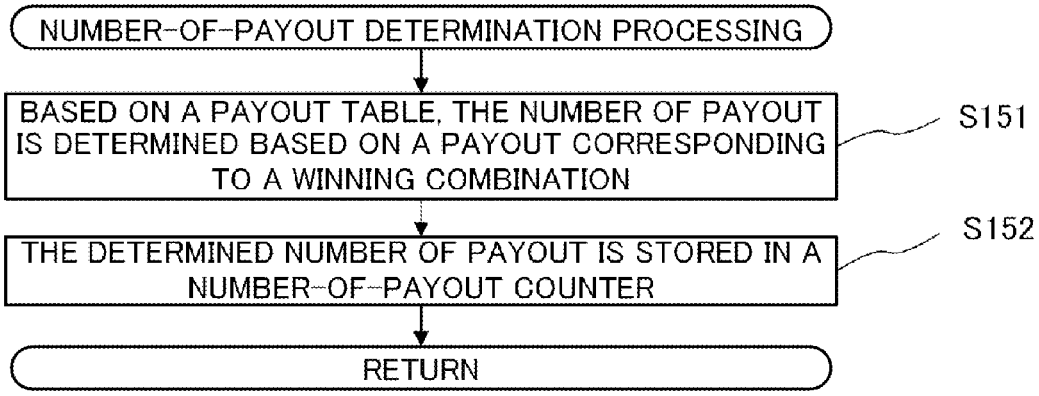

NUMBER-OF-PAYOUT DETERMINATION PROCESSING
BASED ON A PAYOUT TABLE, THE NUMBER OF PAYOUT IS DETERMINED BASED ON A PAYOUT CORRESPONDING TO A WINNING COMBINATION
S151
THE DETERMINED NUMBER OF PAYOUT IS STORED IN A NUMBER-OF-PAYOUT COUNTER
S152
RETURN

FIG. 18

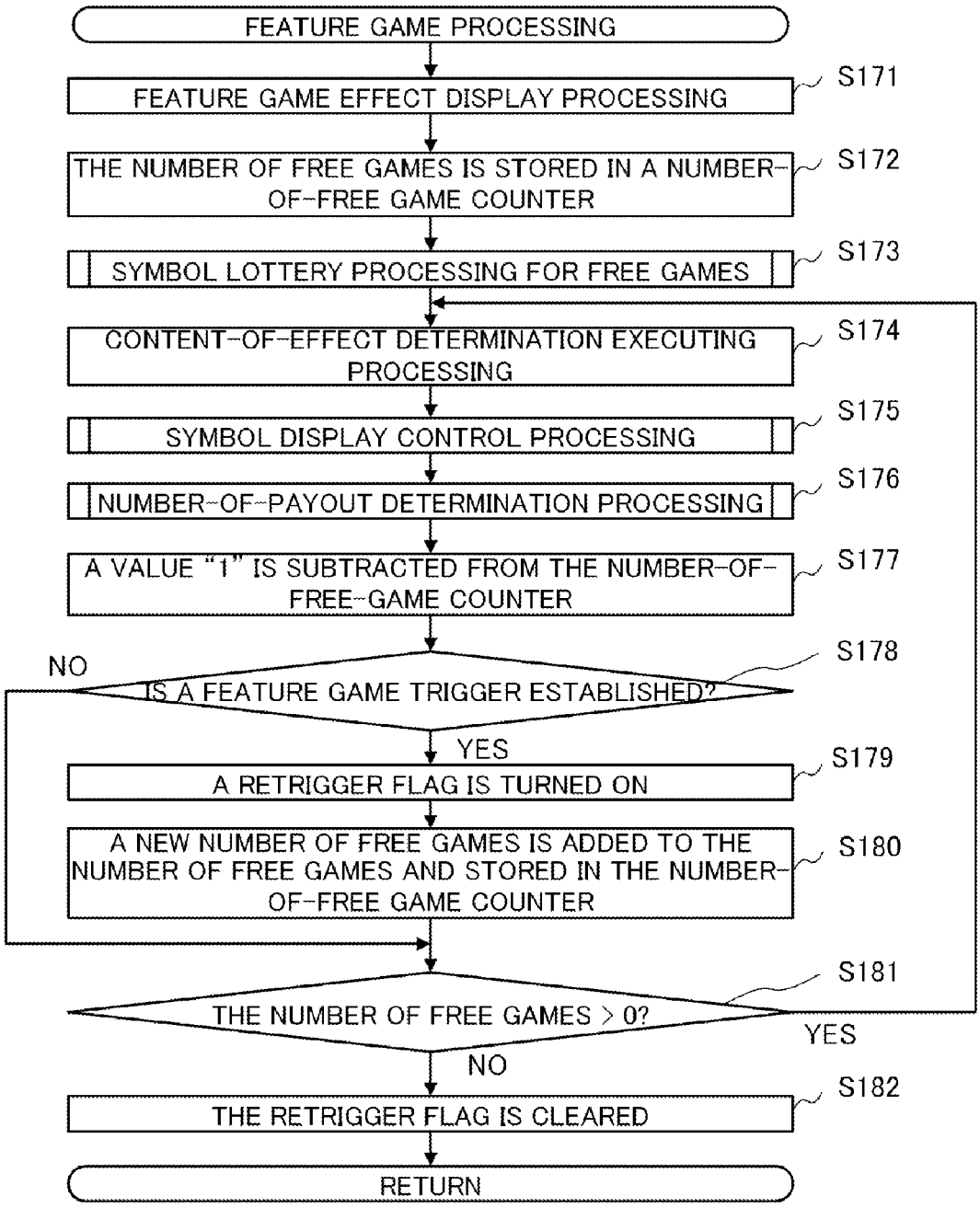

FEATURE GAME PROCESSING
FEATURE GAME EFFECT DISPLAY PROCESSING
S171
THE NUMBER OF FREE GAMES IS STORED IN A NUMBER-OF-FREE GAME COUNTER
S172
SYMBOL LOTTERY PROCESSING FOR FREE GAMES
S173
CONTENT-OF-EFFECT DETERMINATION EXECUTING PROCESSING
S174
SYMBOL DISPLAY CONTROL PROCESSING
S175
NUMBER-OF-PAYOUT DETERMINATION PROCESSING
S176
A VALUE "1" IS SUBTRACTED FROM THE NUMBER-OF-FREE-GAME COUNTER
S177
NO
IS A FEATURE GAME TRIGGER ESTABLISHED?
S178
YES
A RETRIGGER FLAG IS TURNED ON
S179
A NEW NUMBER OF FREE GAMES IS ADDED TO THE NUMBER OF FREE GAMES AND STORED IN THE NUMBER-OF-FREE GAME COUNTER
S180
THE NUMBER OF FREE GAMES > 0?
S181
YES
NO
THE RETRIGGER FLAG IS CLEARED
S182
RETURN

FIG. 19

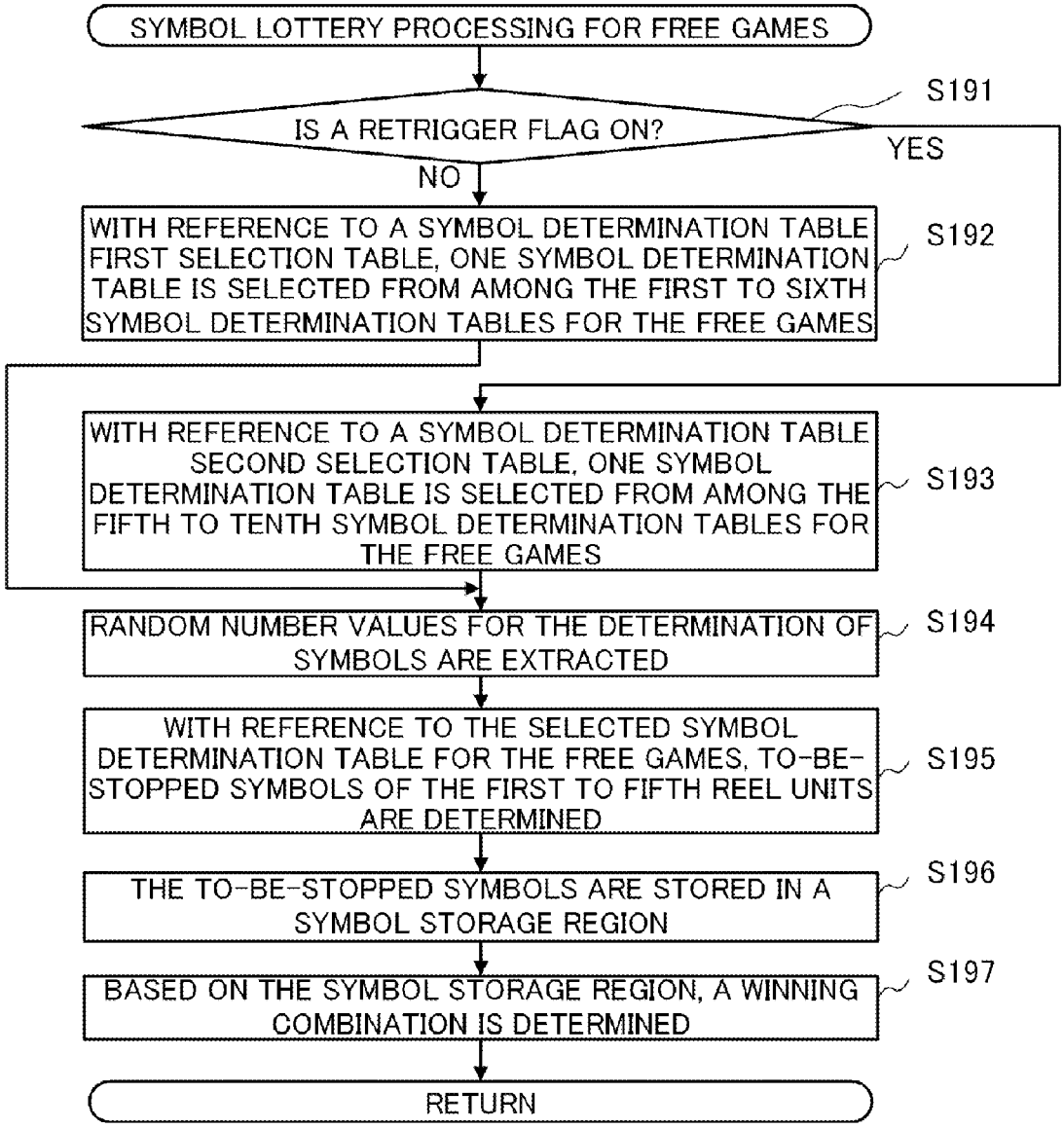

SYMBOL LOTTERY PROCESSING FOR FREE GAMES
S191
IS A RETRIGGER FLAG ON?
YES
NO
WITH REFERENCE TO A SYMBOL DETERMINATION TABLE FIRST SELECTION TABLE, ONE SYMBOL DETERMINATION TABLE IS SELECTED FROM AMONG THE FIRST TO SIXTH SYMBOL DETERMINATION TABLES FOR THE FREE GAMES
S192
WITH REFERENCE TO A SYMBOL DETERMINATION TABLE SECOND SELECTION TABLE, ONE SYMBOL DETERMINATION TABLE IS SELECTED FROM AMONG THE FIFTH TO TENTH SYMBOL DETERMINATION TABLES FOR THE FREE GAMES
S193
RANDOM NUMBER VALUES FOR THE DETERMINATION OF SYMBOLS ARE EXTRACTED
S194
WITH REFERENCE TO THE SELECTED SYMBOL DETERMINATION TABLE FOR THE FREE GAMES, TO-BE-STOPPED SYMBOLS OF THE FIRST TO FIFTH REEL UNITS ARE DETERMINED
S195
THE TO-BE-STOPPED SYMBOLS ARE STORED IN A SYMBOL STORAGE REGION
S196
BASED ON THE SYMBOL STORAGE REGION, A WINNING COMBINATION IS DETERMINED
S197
RETURN

FIG. 20A

SYMBOL DETERMINATION TABLE FIRST SELECTION TABLE (FIRST EMBODIMENT)

No.	TABLE	WEIGHT
1	FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES	18
2	SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES	11
3	THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES	17
4	FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	17
5	FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	22
6	SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	15
7	SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
8	EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
9	NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
10	TENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
TOTAL		100

FIG. 20B

SYMBOL DETERMINATION TABLE SECOND SELECTION TABLE (FIRST EMBODIMENT)

No.	TABLE	WEIGHT
1	FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
2	SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
3	THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
4	FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
5	FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	1
6	SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	13
7	SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	10
8	EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	22
9	NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	22
10	TENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	32
TOTAL		100

FIG. 21

FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	1	BLANK	1	BLANK	2	BLANK	2
02	BONUS	0	SEVEN	12	BONUS	1	SEVEN	2	BONUS	3
03	BLANK	22	BLANK	1	BLANK	1	BLANK	2	BLANK	1
04	SEVEN	2	BONUS	1	1BAR	0	BONUS	2	SEVEN	2
05	BLANK	2	BLANK	1	BLANK	0	BLANK	2	BLANK	1
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	2
07	BLANK	0	BLANK	0	BLANK	8	BLANK	7	BLANK	6
08	BONUS	0	BONUS	0	SEVEN	3	BONUS	6	BONUS	6
09	BLANK	0	BLANK	0	BLANK	11	BLANK	7	BLANK	6
10	2BAR	0	3BAR	0	2BAR	0	1BAR	3	2BAR	2
11	BLANK	0	BLANK	0	BLANK	0	BLANK	1	BLANK	2
12	1BAR	0	1BAR	0	1BAR	0	3BAR	1	1BAR	2
13	BLANK	5	BLANK	4	BLANK	8	BLANK	1	BLANK	2
14	SEVEN	1	SEVEN	24	SEVEN	3	SEVEN	2	SEVEN	2
15	BLANK	5	BLANK	4	BLANK	11	BLANK	1	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		37		48		47		40		41

FIG. 22

SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	0	BLANK	1	BLANK	1	BLANK	2
02	BONUS	0	SEVEN	1	BONUS	1	SEVEN	1	BONUS	2
03	BLANK	3	BLANK	1	BLANK	1	BLANK	2	BLANK	2
04	SEVEN	15	BONUS	1	1BAR	0	BONUS	4	SEVEN	1
05	BLANK	2	BLANK	1	BLANK	0	BLANK	2	BLANK	3
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	2
07	BLANK	0	BLANK	0	BLANK	2	BLANK	2	BLANK	2
08	BONUS	0	BONUS	0	SEVEN	24	BONUS	2	BONUS	2
09	BLANK	0	BLANK	0	BLANK	2	BLANK	2	BLANK	2
10	2BAR	0	3BAR	0	2BAR	0	1BAR	1	2BAR	4
11	BLANK	0	BLANK	0	BLANK	0	BLANK	1	BLANK	4
12	1BAR	0	1BAR	0	1BAR	0	3BAR	1	1BAR	4
13	BLANK	1	BLANK	2	BLANK	1	BLANK	2	BLANK	4
14	SEVEN	12	SEVEN	23	SEVEN	12	SEVEN	2	SEVEN	1
15	BLANK	1	BLANK	2	BLANK	1	BLANK	2	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		34		31		45		26		37

FIG. 23

THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	0	BLANK	1	BLANK	2	BLANK	2
02	BONUS	0	SEVEN	4	BONUS	1	SEVEN	2	BONUS	2
03	BLANK	0	BLANK	18	BLANK	1	BLANK	2	BLANK	2
04	SEVEN	2	BONUS	0	1BAR	0	BONUS	3	SEVEN	2
05	BLANK	4	BLANK	0	BLANK	0	BLANK	1	BLANK	2
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	2
07	BLANK	1	BLANK	0	BLANK	0	BLANK	4	BLANK	4
08	BONUS	1	BONUS	0	SEVEN	6	BONUS	8	BONUS	7
09	BLANK	1	BLANK	0	BLANK	12	BLANK	4	BLANK	4
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	3
11	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
12	1BAR	0	1BAR	0	1BAR	0	3BAR	2	1BAR	3
13	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
14	SEVEN	6	SEVEN	2	SEVEN	5	SEVEN	2	SEVEN	2
15	BLANK	29	BLANK	2	BLANK	13	BLANK	1	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		44		26		39		40		40

FIG. 24

FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	4	BLANK	1	BLANK	2	BLANK	2
02	BONUS	0	SEVEN	2	BONUS	1	SEVEN	2	BONUS	2
03	BLANK	18	BLANK	0	BLANK	1	BLANK	1	BLANK	2
04	SEVEN	4	BONUS	0	1BAR	0	BONUS	3	SEVEN	2
05	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	2
07	BLANK	0	BLANK	1	BLANK	12	BLANK	4	BLANK	4
08	BONUS	0	BONUS	1	SEVEN	6	BONUS	8	BONUS	7
09	BLANK	0	BLANK	1	BLANK	0	BLANK	4	BLANK	4
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	3
11	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
12	1BAR	0	1BAR	0	1BAR	0	3BAR	2	1BAR	3
13	BLANK	2	BLANK	29	BLANK	13	BLANK	1	BLANK	2
14	SEVEN	2	SEVEN	6	SEVEN	5	SEVEN	2	SEVEN	2
15	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		26		44		39		40		40

FIG. 25

FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	0	BLANK	4	BLANK	2	BLANK	2
02	BONUS	0	SEVEN	3	BONUS	5	SEVEN	2	BONUS	3
03	BLANK	18	BLANK	1	BLANK	4	BLANK	2	BLANK	1
04	SEVEN	3	BONUS	1	1BAR	0	BONUS	2	SEVEN	2
05	BLANK	6	BLANK	1	BLANK	0	BLANK	2	BLANK	1
06	3BAR	0	2BAR	0	2BAR	0	2BAR	2	3BAR	2
07	BLANK	1	BLANK	1	BLANK	3	BLANK	3	BLANK	5
08	BONUS	1	BONUS	1	SEVEN	1	BONUS	3	BONUS	6
09	BLANK	1	BLANK	1	BLANK	3	BLANK	3	BLANK	5
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	2
11	BLANK	0	BLANK	0	BLANK	0	BLANK	5	BLANK	2
12	1BAR	0	1BAR	0	1BAR	0	3BAR	4	1BAR	2
13	BLANK	2	BLANK	1	BLANK	3	BLANK	2	BLANK	2
14	SEVEN	1	SEVEN	6	SEVEN	1	SEVEN	2	SEVEN	2
15	BLANK	2	BLANK	1	BLANK	2	BLANK	2	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		35		17		26		40		39

FIG. 26

SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	1	BLANK	0	BLANK	2	BLANK	2
02	BONUS	0	SEVEN	11	BONUS	0	SEVEN	1	BONUS	3
03	BLANK	12	BLANK	1	BLANK	0	BLANK	2	BLANK	1
04	SEVEN	2	BONUS	0	1BAR	0	BONUS	2	SEVEN	2
05	BLANK	11	BLANK	0	BLANK	0	BLANK	2	BLANK	1
06	3BAR	0	2BAR	0	2BAR	0	2BAR	2	3BAR	2
07	BLANK	0	BLANK	0	BLANK	17	BLANK	6	BLANK	6
08	BONUS	0	BONUS	0	SEVEN	3	BONUS	6	BONUS	6
09	BLANK	0	BLANK	0	BLANK	4	BLANK	6	BLANK	6
10	2BAR	0	3BAR	0	2BAR	0	1BAR	2	2BAR	2
11	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
12	1BAR	0	1BAR	0	1BAR	0	3BAR	2	1BAR	2
13	BLANK	5	BLANK	1	BLANK	7	BLANK	2	BLANK	2
14	SEVEN	2	SEVEN	11	SEVEN	2	SEVEN	1	SEVEN	2
15	BLANK	13	BLANK	1	BLANK	4	BLANK	2	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		45		26		37		40		41

FIG. 27

SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	0	BLANK	3	BLANK	2	BLANK	1
02	BONUS	0	SEVEN	2	BONUS	4	SEVEN	1	BONUS	1
03	BLANK	1	BLANK	2	BLANK	3	BLANK	2	BLANK	1
04	SEVEN	11	BONUS	2	1BAR	0	BONUS	1	SEVEN	1
05	BLANK	1	BLANK	2	BLANK	0	BLANK	2	BLANK	2
06	3BAR	0	2BAR	0	2BAR	0	2BAR	2	3BAR	2
07	BLANK	0	BLANK	0	BLANK	2	BLANK	2	BLANK	1
08	BONUS	0	BONUS	0	SEVEN	12	BONUS	2	BONUS	4
09	BLANK	0	BLANK	0	BLANK	2	BLANK	2	BLANK	1
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	7
11	BLANK	0	BLANK	0	BLANK	0	BLANK	1	BLANK	5
12	1BAR	0	1BAR	0	1BAR	0	3BAR	1	1BAR	5
13	BLANK	2	BLANK	3	BLANK	2	BLANK	3	BLANK	1
14	SEVEN	12	SEVEN	16	SEVEN	13	SEVEN	2	SEVEN	1
15	BLANK	2	BLANK	3	BLANK	2	BLANK	3	BLANK	1
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		29		30		43		30		34

FIG. 28

EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	0	BLANK	1	BLANK	2	BLANK	1
02	BONUS	0	SEVEN	4	BONUS	1	SEVEN	2	BONUS	1
03	BLANK	0	BLANK	18	BLANK	1	BLANK	2	BLANK	1
04	SEVEN	2	BONUS	0	1BAR	0	BONUS	2	SEVEN	2
05	BLANK	4	BLANK	0	BLANK	0	BLANK	2	BLANK	1
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	2
07	BLANK	0	BLANK	0	BLANK	0	BLANK	3	BLANK	0
08	BONUS	0	BONUS	0	SEVEN	8	BONUS	4	BONUS	0
09	BLANK	0	BLANK	0	BLANK	10	BLANK	3	BLANK	0
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	8
11	BLANK	0	BLANK	0	BLANK	0	BLANK	4	BLANK	9
12	1BAR	0	1BAR	0	1BAR	0	3BAR	5	1BAR	9
13	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
14	SEVEN	9	SEVEN	2	SEVEN	6	SEVEN	2	SEVEN	2
15	BLANK	26	BLANK	2	BLANK	10	BLANK	1	BLANK	3
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		41		26		37		39		40

FIG. 29

NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	4	BLANK	1	BLANK	2	BLANK	1
02	BONUS	0	SEVEN	2	BONUS	1	SEVEN	2	BONUS	1
03	BLANK	18	BLANK	0	BLANK	1	BLANK	2	BLANK	1
04	SEVEN	4	BONUS	0	1BAR	0	BONUS	2	SEVEN	2
05	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	1
07	BLANK	0	BLANK	0	BLANK	10	BLANK	3	BLANK	0
08	BONUS	0	BONUS	0	SEVEN	8	BONUS	4	BONUS	0
09	BLANK	0	BLANK	0	BLANK	0	BLANK	3	BLANK	0
10	2BAR	0	3BAR	0	2BAR	0	1BAR	4	2BAR	8
11	BLANK	0	BLANK	0	BLANK	0	BLANK	4	BLANK	9
12	1BAR	0	1BAR	0	1BAR	0	3BAR	5	1BAR	9
13	BLANK	2	BLANK	26	BLANK	10	BLANK	1	BLANK	3
14	SEVEN	2	SEVEN	9	SEVEN	6	SEVEN	2	SEVEN	2
15	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		26		41		37		39		40

FIG. 30

TENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (FIRST EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	3BAR	0	1BAR	0	1BAR	0	2BAR	0
01	BLANK	0	BLANK	7	BLANK	0	BLANK	2	BLANK	1
02	BONUS	0	SEVEN	18	BONUS	0	SEVEN	2	BONUS	1
03	BLANK	20	BLANK	0	BLANK	0	BLANK	7	BLANK	1
04	SEVEN	2	BONUS	0	1BAR	0	BONUS	7	SEVEN	1
05	BLANK	3	BLANK	0	BLANK	0	BLANK	7	BLANK	1
06	3BAR	0	2BAR	0	2BAR	0	2BAR	1	3BAR	3
07	BLANK	0	BLANK	0	BLANK	14	BLANK	1	BLANK	0
08	BONUS	0	BONUS	0	SEVEN	5	BONUS	1	BONUS	0
09	BLANK	0	BLANK	0	BLANK	15	BLANK	2	BLANK	0
10	2BAR	0	3BAR	0	2BAR	0	1BAR	2	2BAR	11
11	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	11
12	1BAR	0	1BAR	0	1BAR	0	3BAR	2	1BAR	11
13	BLANK	7	BLANK	24	BLANK	14	BLANK	2	BLANK	2
14	SEVEN	2	SEVEN	44	SEVEN	5	SEVEN	2	SEVEN	2
15	BLANK	10	BLANK	14	BLANK	15	BLANK	2	BLANK	2
16	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	1BAR	0	1BAR	0	3BAR	0	3BAR	0	1BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		44		107		68		42		47

FIG. 31

SYMBOL DETERMINATION TABLE FOR A BASIC GAME (SECONDT EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	1	2BAR	4	3BAR	1	2BAR	4	1BAR	4
01	BLANK	5	BLANK	1	BLANK	8	BLANK	12	BLANK	6
02	SEVEN	3	SEVEN	1	SEVEN	1	SEVEN	4	SEVEN	6
03	BLANK	1	BLANK	1	BLANK	1	BLANK	5	BLANK	7
04	3BAR	2	2BAR	5	3BAR	1	2BAR	7	3BAR	1
05	BLANK	7	BLANK	1	BLANK	27	BLANK	1	BLANK	12
06	2BAR	1	3BAR	9	1BAR	1	3BAR	3	2BAR	2
07	BLANK	4	BLANK	7	BLANK	1	BLANK	1	BLANK	5
08	BELL	3	BELL	9	BELL	1	BELL	3	BELL	1
09	BLANK	3	BLANK	3	BLANK	1	BLANK	1	BLANK	1
10	1BAR	1	1BAR	1	2BAR	1	1BAR	2	1BAR	1
11	BLANK	5	BLANK	5	BLANK	5	BLANK	1	BLANK	1
12	BELL	9	BELL	5	BELL	5	BELL	3	BELL	4
13	BLANK	22	BLANK	11	BLANK	5	BLANK	25	BLANK	7
14	SEVEN	1	SEVEN	4	1BAR	1	SEVEN	3	SEVEN	7
15	BLANK	1	BLANK	1	BLANK	1	BLANK	9	BLANK	6
16	3BAR	1	1BAR	7	SEVEN	1	1BAR	4	3BAR	2
17	BLANK	1	BLANK	1	BLANK	1	BLANK	1	BLANK	1
18	COIN	1	COIN	1	2BAR	1	COIN	1	COIN	2
19	BLANK	1	BLANK	1	BLANK	1	BLANK	1	BLANK	1
20	2BAR	2	3BAR	8	COIN	1	3BAR	10	2BAR	3
21	BLANK	17	BLANK	2	BLANK	1	BLANK	1	BLANK	8
TOTAL		92		88		67		102		88

FIG. 32

PAYOUT TABLE (SECOND EMBODIMENT)

COMBINATION OF SYMBOLS						WINNING COMBINATION
FIRST REEL	SECOND REEL	THIRD REEL	FOURTH REEL	FIFTH REEL		
SEVEN	SEVEN	SEVEN	(ANY)	(ANY)	500	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	(ANY)	750	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	SEVEN	1500	SEVEN
3BAR	3BAR	3BAR	(ANY)	(ANY)	100	3BAR
3BAR	3BAR	3BAR	3BAR	(ANY)	200	3BAR
3BAR	3BAR	3BAR	3BAR	3BAR	400	3BAR
2BAR	2BAR	2BAR	(ANY)	(ANY)	50	2BAR
2BAR	2BAR	2BAR	2BAR	(ANY)	150	2BAR
2BAR	2BAR	2BAR	2BAR	2BAR	300	2BAR
1BAR	1BAR	1BAR	(ANY)	(ANY)	30	1BAR
1BAR	1BAR	1BAR	1BAR	(ANY)	100	1BAR
1BAR	1BAR	1BAR	1BAR	1BAR	250	1BAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	(ANY)	15	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	50	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	200	MIXBAR
BELL	BELL	BELL	(ANY)	(ANY)	20	BELL
BELL	BELL	BELL	BELL	(ANY)	50	BELL
BELL	BELL	BELL	BELL	BELL	100	BELL
ONE COIN SYMBOL					30	COIN
TWO COIN SYMBOLS					90	COIN
THREE COIN SYMBOLS					150	COIN
FOUR COIN SYMBOLS					300	COIN
FIVE COIN SYMBOLS					450	COIN

FIG. 33

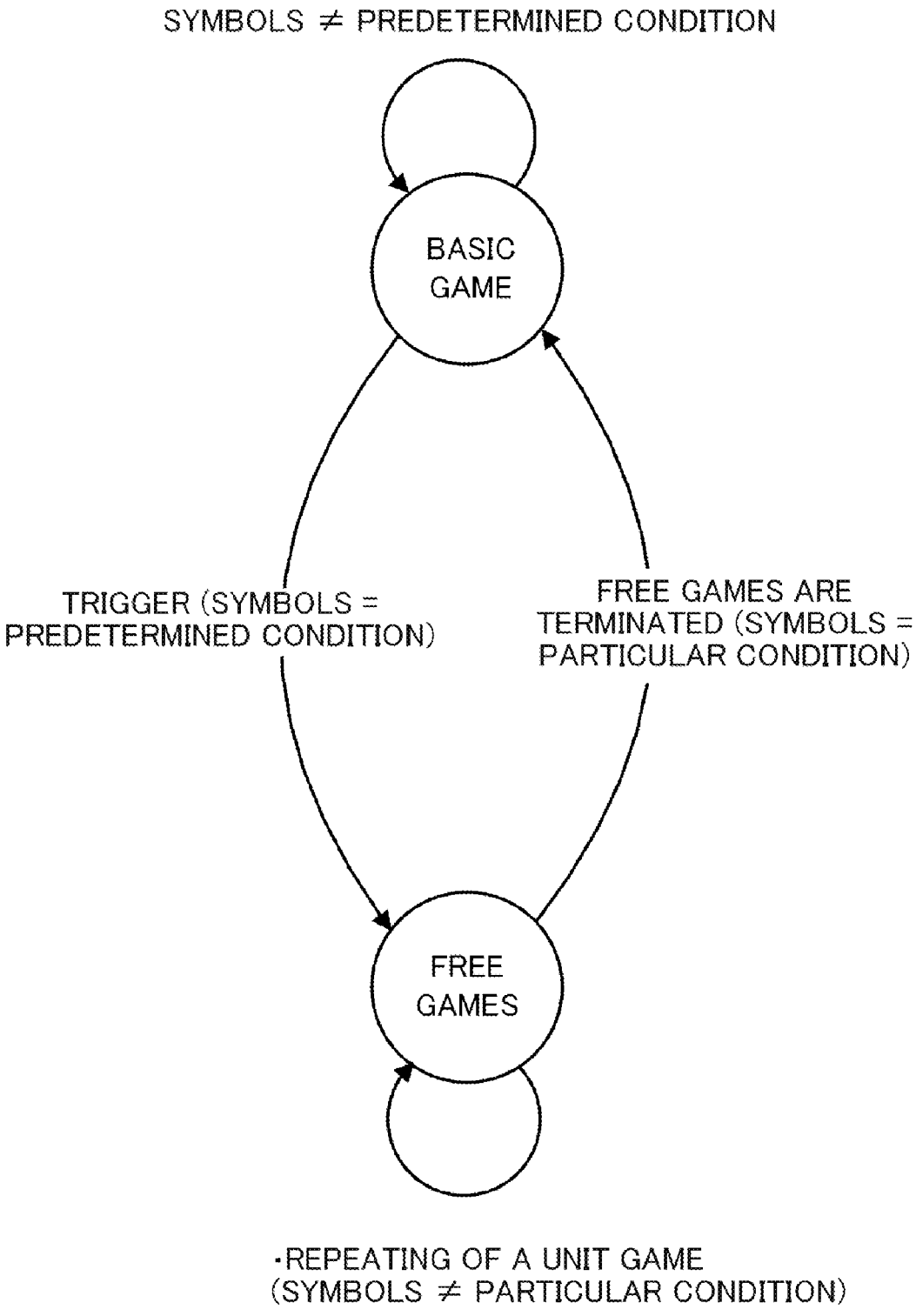

SYMBOLS ≠ PREDETERMINED CONDITION
BASIC GAME
TRIGGER (SYMBOLS = PREDETERMINED CONDITION)
FREE GAMES ARE TERMINATED (SYMBOLS = PARTICULAR CONDITION)
FREE GAMES
·REPEATING OF A UNIT GAME (SYMBOLS ≠ PARTICULAR CONDITION)

FIG. 34

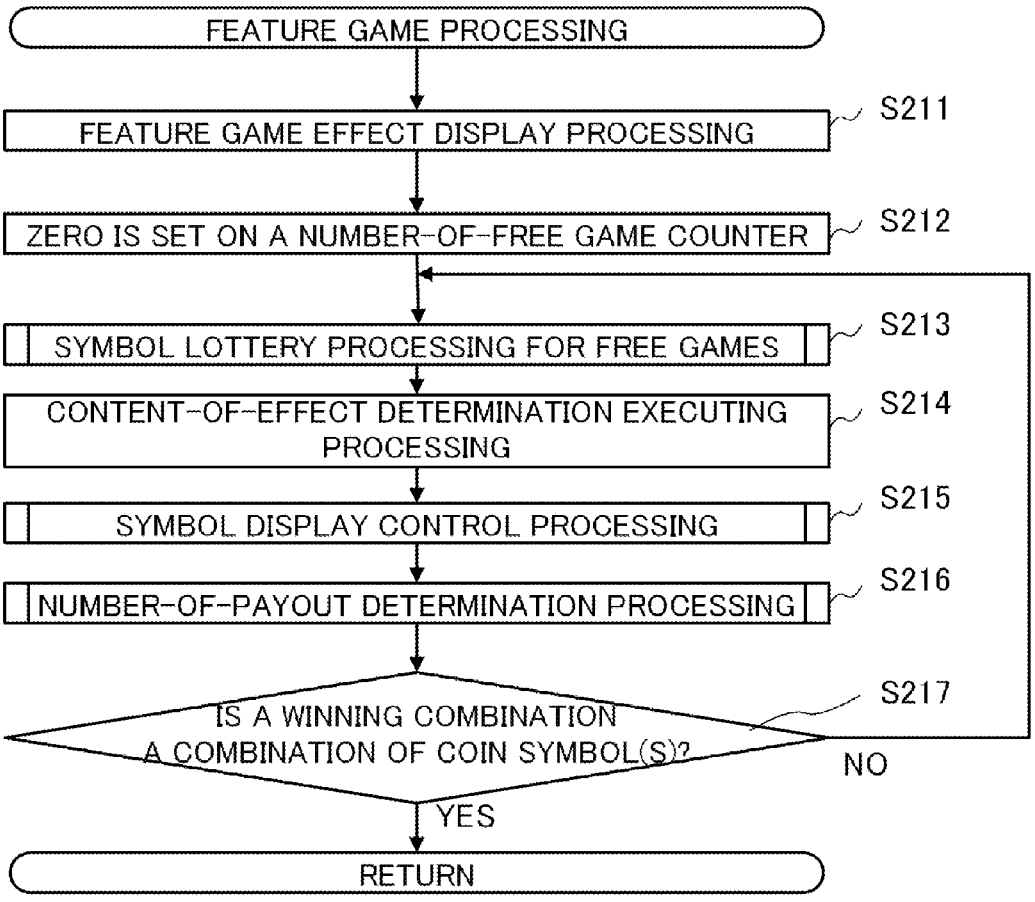

FEATURE GAME PROCESSING
FEATURE GAME EFFECT DISPLAY PROCESSING
S211
ZERO IS SET ON A NUMBER-OF-FREE GAME COUNTER
S212
SYMBOL LOTTERY PROCESSING FOR FREE GAMES
S213
CONTENT-OF-EFFECT DETERMINATION EXECUTING PROCESSING
S214
SYMBOL DISPLAY CONTROL PROCESSING
S215
NUMBER-OF-PAYOUT DETERMINATION PROCESSING
S216
IS A WINNING COMBINATION A COMBINATION OF COIN SYMBOL(S)?
S217
NO
YES
RETURN

FIG. 35

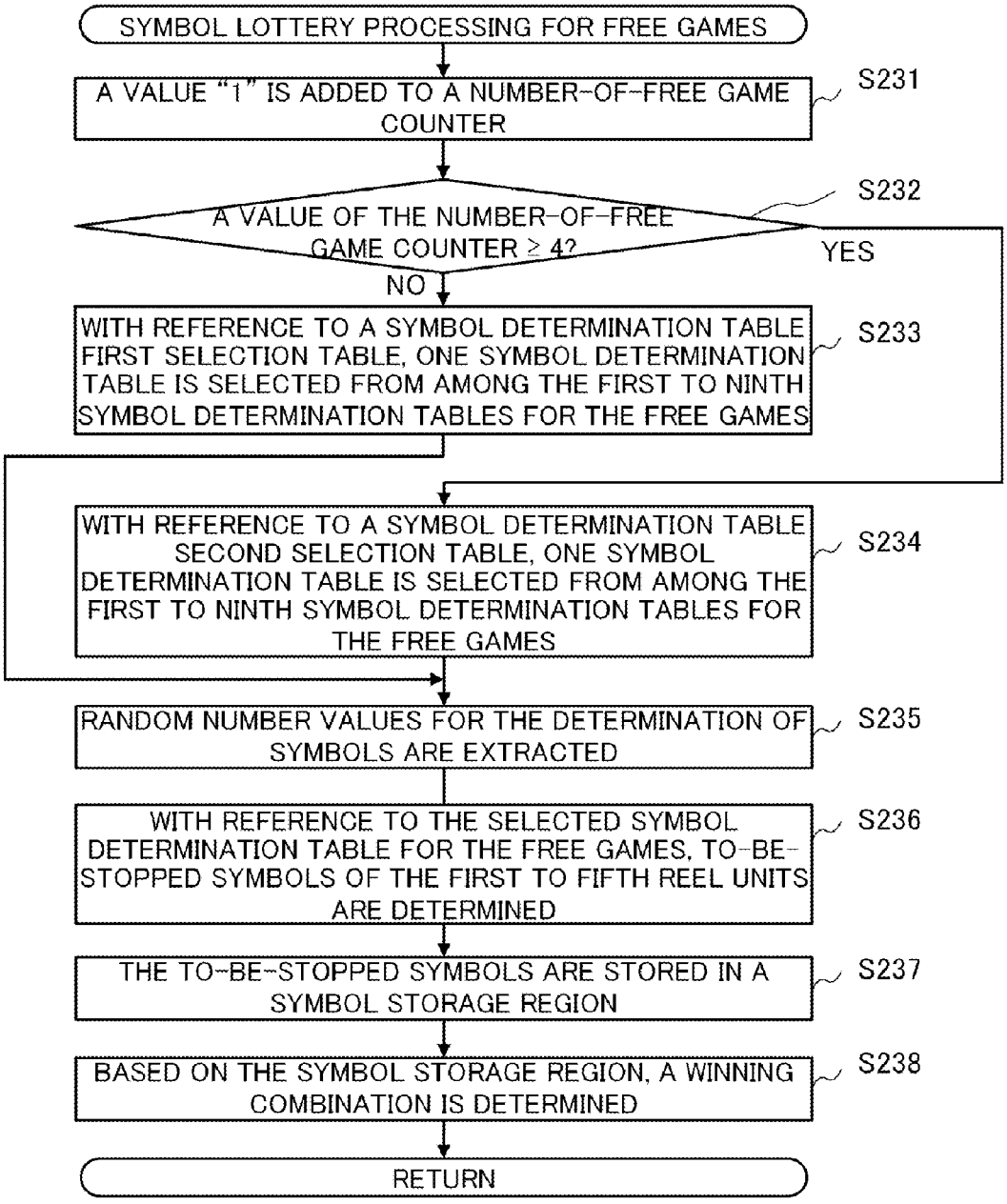

SYMBOL LOTTERY PROCESSING FOR FREE GAMES
A VALUE "1" IS ADDED TO A NUMBER-OF-FREE GAME COUNTER
S231
A VALUE OF THE NUMBER-OF-FREE GAME COUNTER ≥ 4?
S232
YES
NO
WITH REFERENCE TO A SYMBOL DETERMINATION TABLE FIRST SELECTION TABLE, ONE SYMBOL DETERMINATION TABLE IS SELECTED FROM AMONG THE FIRST TO NINTH SYMBOL DETERMINATION TABLES FOR THE FREE GAMES
S233
WITH REFERENCE TO A SYMBOL DETERMINATION TABLE SECOND SELECTION TABLE, ONE SYMBOL DETERMINATION TABLE IS SELECTED FROM AMONG THE FIRST TO NINTH SYMBOL DETERMINATION TABLES FOR THE FREE GAMES
S234
RANDOM NUMBER VALUES FOR THE DETERMINATION OF SYMBOLS ARE EXTRACTED
S235
WITH REFERENCE TO THE SELECTED SYMBOL DETERMINATION TABLE FOR THE FREE GAMES, TO-BE-STOPPED SYMBOLS OF THE FIRST TO FIFTH REEL UNITS ARE DETERMINED
S236
THE TO-BE-STOPPED SYMBOLS ARE STORED IN A SYMBOL STORAGE REGION
S237
BASED ON THE SYMBOL STORAGE REGION, A WINNING COMBINATION IS DETERMINED
S238
RETURN

FIG. 36A

SYMBOL DETERMINATION TABLE FIRST SELECTION TABLE (SECOND EMBODIMENT)

No.	TABLE	WEIGHT
1	FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES	64
2	SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES	64
3	THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES	64
4	FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	1
5	FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	1
6	SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
7	SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
8	EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	46
9	NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
TOTAL		240

FIG. 36B

SYMBOL DETERMINATION TABLE SECOND SELECTION TABLE (SECOND EMBODIMENT)

No.	TABLE	WEIGHT
1	FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES	12
2	SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES	12
3	THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES	12
4	FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	3
5	FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	3
6	SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
7	SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	12
8	EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	10
9	NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES	0
TOTAL		64

FIG. 37

FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	1	BLANK	2	BLANK	2
08	BELL	1	BELL	1	BELL	10	BELL	2	BELL	2
09	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	2
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	1	BLANK	0	BLANK	0
12	BELL	1	BELL	1	BELL	7	BELL	0	BELL	0
13	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
14	SEVEN	0	SEVEN	0	1BAR	0	SEVEN	0	SEVEN	0
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		2		2		19		6		6

FIG. 38

SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	15	BLANK	2	BLANK	0
08	BELL	0	BELL	1	BELL	1	BELL	2	BELL	4
09	BLANK	1	BLANK	0	BLANK	0	BLANK	2	BLANK	2
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	2	BLANK	0	BLANK	0
12	BELL	0	BELL	1	BELL	1	BELL	0	BELL	0
13	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
14	SEVEN	0	SEVEN	0	1BAR	0	SEVEN	0	SEVEN	0
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		1		2		19		6		6

FIG. 39

THIRD SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	1	BLANK	0	BLANK	0	BLANK	2	BLANK	2
08	BELL	0	BELL	1	BELL	1	BELL	2	BELL	3
09	BLANK	0	BLANK	0	BLANK	7	BLANK	2	BLANK	1
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	BELL	0	BELL	1	BELL	1	BELL	0	BELL	0
13	BLANK	0	BLANK	0	BLANK	10	BLANK	0	BLANK	0
14	SEVEN	0	SEVEN	0	1BAR	0	SEVEN	0	SEVEN	0
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		1		2		19		6		6

FIG. 40

FOURTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
08	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
09	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
13	BLANK	1	BLANK	0	BLANK	0	BLANK	2	BLANK	1
14	SEVEN	1	SEVEN	1	1BAR	0	SEVEN	1	SEVEN	1
15	BLANK	0	BLANK	0	BLANK	1	BLANK	2	BLANK	3
16	3BAR	0	1BAR	0	SEVEN	2	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	2	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		2		1		5		5		5

FIG. 41

FIFTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
08	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
09	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
13	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	3
14	SEVEN	1	SEVEN	1	1BAR	0	SEVEN	1	SEVEN	1
15	BLANK	1	BLANK	0	BLANK	2	BLANK	2	BLANK	1
16	3BAR	0	1BAR	0	SEVEN	2	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	1	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		2		1		5		5		5

FIG. 42

SIXTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
08	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
09	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
13	BLANK	1	BLANK	0	BLANK	0	BLANK	1	BLANK	5
14	SEVEN	1	SEVEN	1	1BAR	1	SEVEN	1	SEVEN	5
15	BLANK	1	BLANK	0	BLANK	0	BLANK	1	BLANK	5
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
18	COIN	0	COIN	0	2BAR	1	COIN	2	COIN	1
19	BLANK	0	BLANK	0	BLANK	0	BLANK	2	BLANK	1
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		3		1		2		9		18

FIG. 43

SEVENTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	1	3BAR	0	2BAR	0
07	BLANK	2	BLANK	0	BLANK	0	BLANK	0	BLANK	0
08	BELL	1	BELL	1	BELL	0	BELL	0	BELL	0
09	BLANK	2	BLANK	0	BLANK	0	BLANK	0	BLANK	0
10	1BAR	0	1BAR	0	2BAR	1	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	1	BLANK	5
12	BELL	1	BELL	1	BELL	0	BELL	1	BELL	5
13	BLANK	0	BLANK	0	BLANK	0	BLANK	1	BLANK	5
14	SEVEN	0	SEVEN	0	1BAR	1	SEVEN	0	SEVEN	0
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	5	BLANK	1
18	COIN	0	COIN	0	2BAR	0	COIN	5	COIN	1
19	BLANK	0	BLANK	0	BLANK	0	BLANK	5	BLANK	1
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		6		2		3		18		18

FIG. 44

EIGHTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	0	3BAR	0	2BAR	0
07	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
08	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
09	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
10	1BAR	0	1BAR	0	2BAR	0	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	BELL	0	BELL	0	BELL	0	BELL	0	BELL	0
13	BLANK	1	BLANK	0	BLANK	0	BLANK	1	BLANK	1
14	SEVEN	1	SEVEN	1	1BAR	1	SEVEN	1	SEVEN	1
15	BLANK	1	BLANK	0	BLANK	0	BLANK	1	BLANK	1
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	1	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		3		1		2		3		3

FIG. 45

NINTH SYMBOL DETERMINATION TABLE FOR FREE GAMES (SECOND EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	1BAR	0	2BAR	0	3BAR	0	2BAR	0	1BAR	0
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
02	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
04	3BAR	0	2BAR	0	3BAR	0	2BAR	0	3BAR	0
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
06	2BAR	0	3BAR	0	1BAR	1	3BAR	0	2BAR	0
07	BLANK	2	BLANK	0	BLANK	0	BLANK	3	BLANK	3
08	BELL	1	BELL	1	BELL	0	BELL	3	BELL	3
09	BLANK	2	BLANK	0	BLANK	0	BLANK	3	BLANK	3
10	1BAR	0	1BAR	0	2BAR	1	1BAR	0	1BAR	0
11	BLANK	0	BLANK	0	BLANK	0	BLANK	3	BLANK	3
12	BELL	1	BELL	1	BELL	0	BELL	3	BELL	3
13	BLANK	0	BLANK	0	BLANK	0	BLANK	3	BLANK	3
14	SEVEN	0	SEVEN	0	1BAR	1	SEVEN	0	SEVEN	0
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
16	3BAR	0	1BAR	0	SEVEN	0	1BAR	0	3BAR	0
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
18	COIN	0	COIN	0	2BAR	0	COIN	0	COIN	0
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
20	2BAR	0	3BAR	0	COIN	0	3BAR	0	2BAR	0
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
TOTAL		6		2		3		18		18

FIG. 46

SYMBOL DETERMINATION TABLE FOR A BASIC GAME (THIRD EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	10	1BAR	19	2BAR	18	1BAR	20	2BAR	6
01	BLANK	41	BLANK	10	BLANK	58	BLANK	10	BLANK	26
02	1BAR	15	2BAR	19	1BAR	16	2BAR	21	1BAR	6
03	BLANK	5	BLANK	5	BLANK	3	BLANK	10	BLANK	5
04	SEVEN	15	SEVEN	13	SEVEN	3	SEVEN	5	SEVEN	11
05	BLANK	5	BLANK	5	BLANK	3	BLANK	10	BLANK	5
06	1BAR	10	2BAR	16	1BAR	14	2BAR	12	1BAR	15
07	BLANK	10	BLANK	15	BLANK	6	BLANK	17	BLANK	5
08	SEVEN	25	SEVEN	21	SEVEN	25	SEVEN	9	SEVEN	35
09	BLANK	10	BLANK	15	BLANK	5	BLANK	10	BLANK	5
10	3BAR	10	3BAR	17	3BAR	12	3BAR	10	3BAR	9
11	BLANK	2	BLANK	2	BLANK	2	BLANK	2	BLANK	2
12	CHERRY	2	CHERRY	2	CHERRY	2	CHERRY	2	CHERRY	2
13	BLANK	2	BLANK	2	BLANK	2	BLANK	2	BLANK	2
14	2BAR	5	1BAR	8	2BAR	16	1BAR	17	2BAR	6
15	BLANK	18	BLANK	5	BLANK	2	BLANK	6	BLANK	22
16	3BAR	8	3BAR	12	SEVEN	2	3BAR	17	3BAR	5
17	BLANK	18	BLANK	8	BLANK	2	BLANK	6	BLANK	22
18	2BAR	8	1BAR	20	2BAR	21	1BAR	22	2BAR	5
19	BLANK	8	BLANK	8	BLANK	5	BLANK	10	BLANK	3
20	SEVEN	8	SEVEN	6	SEVEN	5	SEVEN	14	SEVEN	12
21	BLANK	8	BLANK	8	BLANK	5	BLANK	9	BLANK	3
TOTAL		243		236		227		241		212

FIG. 47

PAYOUT TABLE (THIRD EMBODIMENT)

COMBINATION OF SYMBOLS						WINNING COMBINATION
FIRST REEL	SECOND REEL	THIRD REEL	FOURTH REEL	FIFTH REEL		
SEVEN	SEVEN	SEVEN	(ANY)	(ANY)	200	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	(ANY)	500	SEVEN
SEVEN	SEVEN	SEVEN	SEVEN	SEVEN	1000	SEVEN
3BAR	3BAR	3BAR	(ANY)	(ANY)	100	3BAR
3BAR	3BAR	3BAR	3BAR	(ANY)	200	3BAR
3BAR	3BAR	3BAR	3BAR	3BAR	400	3BAR
2BAR	2BAR	2BAR	(ANY)	(ANY)	50	2BAR
2BAR	2BAR	2BAR	2BAR	(ANY)	150	2BAR
2BAR	2BAR	2BAR	2BAR	2BAR	300	2BAR
1BAR	1BAR	1BAR	(ANY)	(ANY)	30	1BAR
1BAR	1BAR	1BAR	1BAR	(ANY)	100	1BAR
1BAR	1BAR	1BAR	1BAR	1BAR	250	1BAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	(ANY)	15	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	(ANY)	50	MIXBAR
1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	1BAR／2BAR／3BAR	250	MIXBAR
ONE CHERRY SYMBOL					30	CHERRY
TWO CHERRY SYMBOLS					90	CHERRY
THREE CHERRY SYMBOLS					150	CHERRY
FOUR CHERRY SYMBOLS					300	CHERRY
FIVE CHERRY SYMBOLS					450	CHERRY

FIG. 48

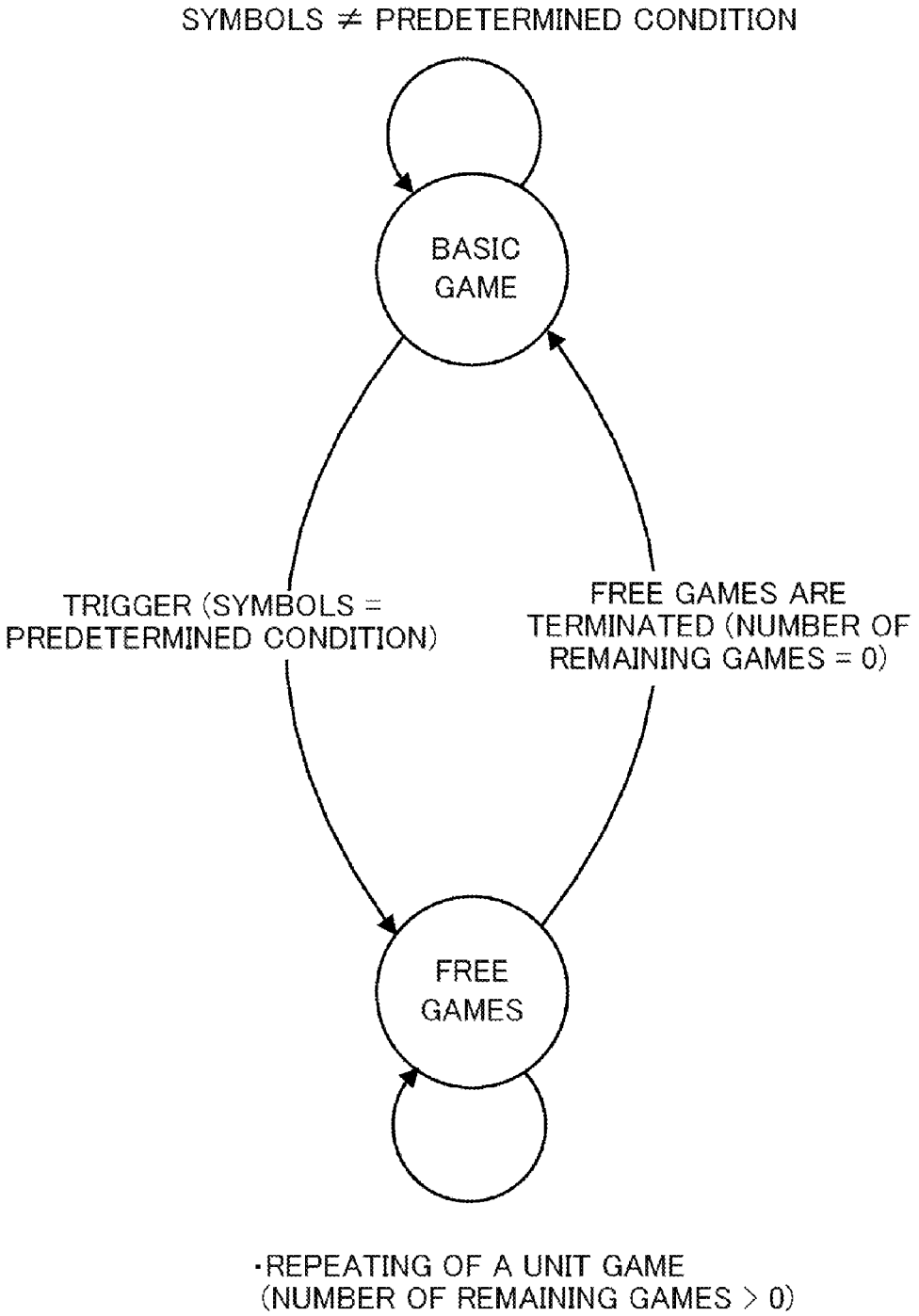

SYMBOLS ≠ PREDETERMINED CONDITION
BASIC GAME
TRIGGER (SYMBOLS = PREDETERMINED CONDITION)
FREE GAMES ARE TERMINATED (NUMBER OF REMAINING GAMES = 0)
FREE GAMES
·REPEATING OF A UNIT GAME (NUMBER OF REMAINING GAMES > 0)

FIG. 49

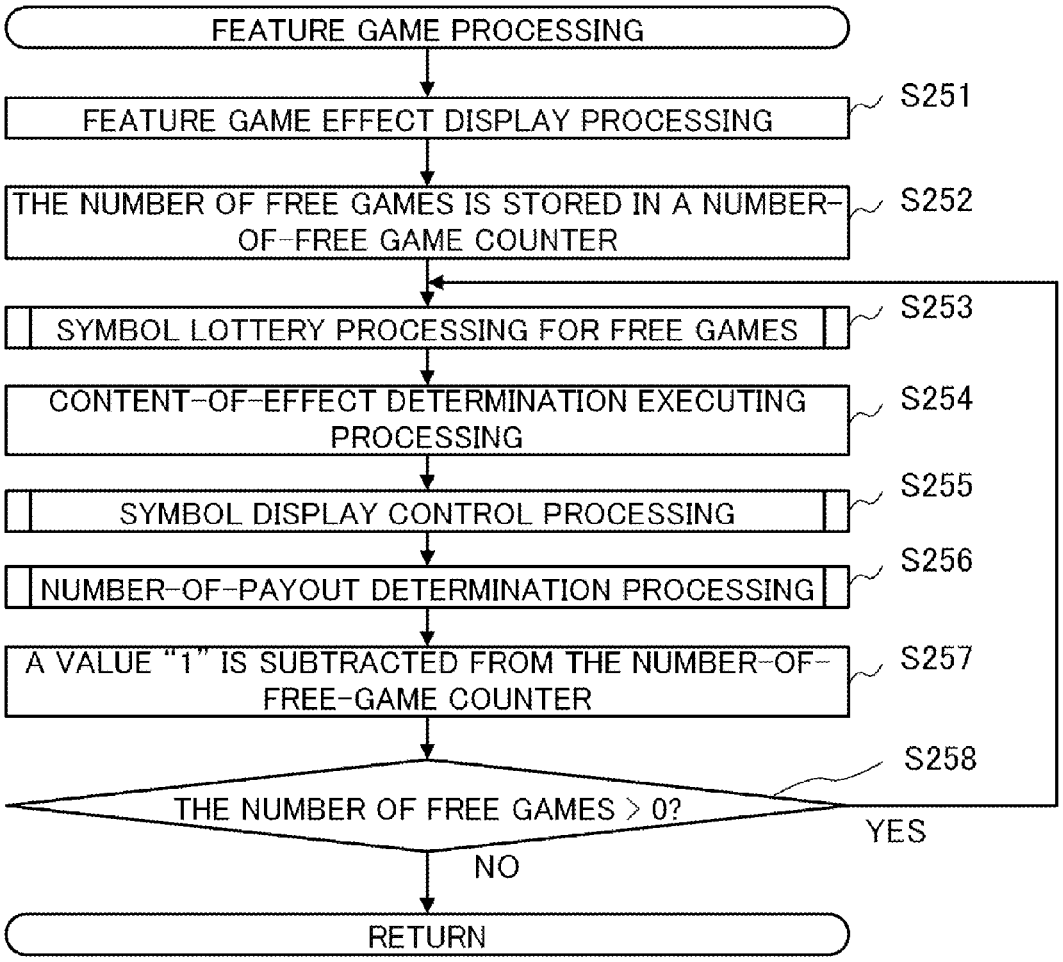

FEATURE GAME PROCESSING
FEATURE GAME EFFECT DISPLAY PROCESSING
S251
THE NUMBER OF FREE GAMES IS STORED IN A NUMBER-OF-FREE GAME COUNTER
S252
SYMBOL LOTTERY PROCESSING FOR FREE GAMES
S253
CONTENT-OF-EFFECT DETERMINATION EXECUTING PROCESSING
S254
SYMBOL DISPLAY CONTROL PROCESSING
S255
NUMBER-OF-PAYOUT DETERMINATION PROCESSING
S256
A VALUE "1" IS SUBTRACTED FROM THE NUMBER-OF-FREE-GAME COUNTER
S257
THE NUMBER OF FREE GAMES > 0?
S258
YES
NO
RETURN

FIG. 50

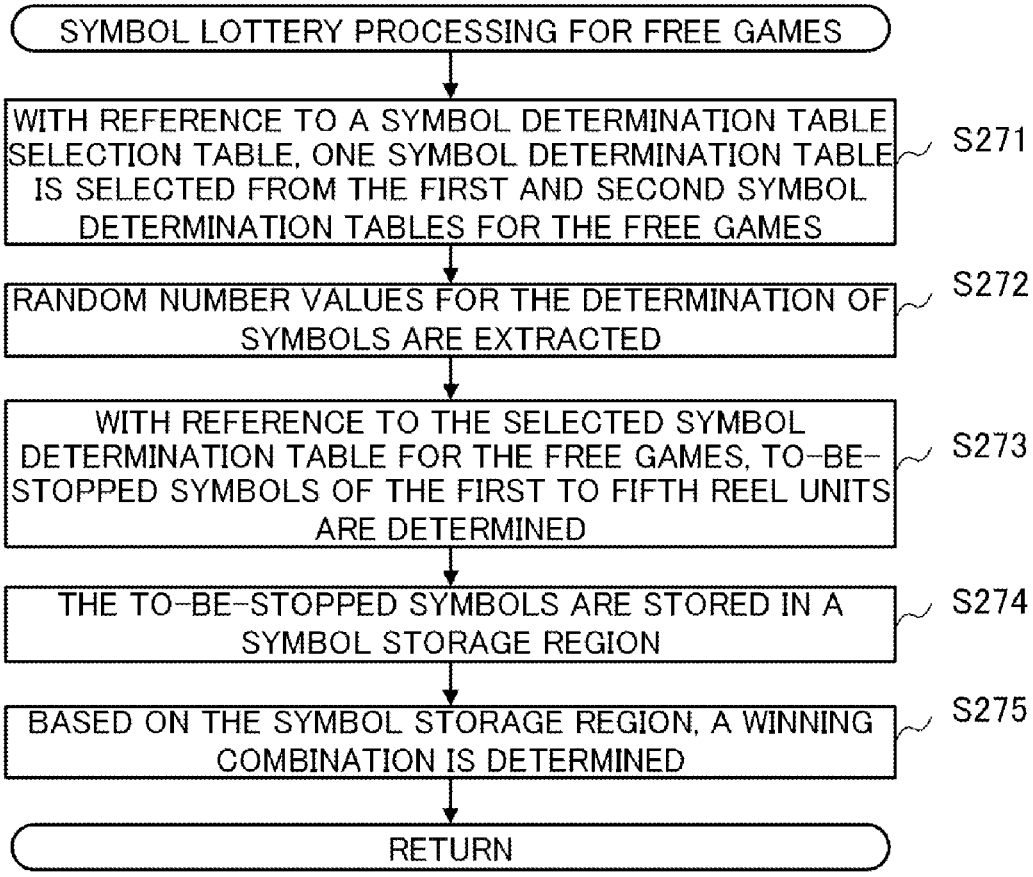

SYMBOL LOTTERY PROCESSING FOR FREE GAMES
WITH REFERENCE TO A SYMBOL DETERMINATION TABLE SELECTION TABLE, ONE SYMBOL DETERMINATION TABLE IS SELECTED FROM THE FIRST AND SECOND SYMBOL DETERMINATION TABLES FOR THE FREE GAMES
S271
RANDOM NUMBER VALUES FOR THE DETERMINATION OF SYMBOLS ARE EXTRACTED
S272
WITH REFERENCE TO THE SELECTED SYMBOL DETERMINATION TABLE FOR THE FREE GAMES, TO-BE-STOPPED SYMBOLS OF THE FIRST TO FIFTH REEL UNITS ARE DETERMINED
S273
THE TO-BE-STOPPED SYMBOLS ARE STORED IN A SYMBOL STORAGE REGION
S274
BASED ON THE SYMBOL STORAGE REGION, A WINNING COMBINATION IS DETERMINED
S275
RETURN

FIG. 51

SYMBOL DETERMINATION TABLE SELECTION TABLE (THIRD EMBODIMENT)

No.	TABLE	WEIGHT
1	FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES	1
2	SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES	1
TOTAL		2

FIG. 52

FIRST SYMBOL DETERMINATION TABLE FOR FREE GAMES (THIRD EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
02	1BAR	0	2BAR	0	1BAR	0	2BAR	0	1BAR	5
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
04	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	5
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
06	1BAR	0	2BAR	0	1BAR	0	2BAR	2	1BAR	5
07	BLANK	1	BLANK	0	BLANK	0	BLANK	3	BLANK	1
08	SEVEN	1	SEVEN	1	SEVEN	2	SEVEN	2	SEVEN	1
09	BLANK	0	BLANK	0	BLANK	2	BLANK	3	BLANK	1
10	3BAR	0	3BAR	0	3BAR	0	3BAR	2	3BAR	5
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
13	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
14	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
16	3BAR	0	3BAR	0	SEVEN	0	3BAR	0	3BAR	5
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
18	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
20	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	5
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
TOTAL		2		1		4		12		83

FIG. 53

SECOND SYMBOL DETERMINATION TABLE FOR FREE GAMES (THIRD EMBODIMENT)

	FIRST REEL		SECOND REEL		THIRD REEL		FOURTH REEL		FIFTH REEL	
CODE NO.	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT	SYMBOL	WEIGHT
00	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
01	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
02	1BAR	0	2BAR	0	1BAR	0	2BAR	0	1BAR	5
03	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
04	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	5
05	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
06	1BAR	0	2BAR	0	1BAR	0	2BAR	2	1BAR	5
07	BLANK	0	BLANK	0	BLANK	2	BLANK	3	BLANK	1
08	SEVEN	1	SEVEN	1	SEVEN	2	SEVEN	2	SEVEN	1
09	BLANK	1	BLANK	0	BLANK	0	BLANK	3	BLANK	1
10	3BAR	0	3BAR	0	3BAR	0	3BAR	2	3BAR	5
11	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
12	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0	CHERRY	0
13	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	0
14	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
15	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
16	3BAR	0	3BAR	0	SEVEN	0	3BAR	0	3BAR	5
17	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
18	2BAR	0	1BAR	0	2BAR	0	1BAR	0	2BAR	5
19	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
20	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	0	SEVEN	5
21	BLANK	0	BLANK	0	BLANK	0	BLANK	0	BLANK	5
TOTAL		2		1		4		12		83

FIG. 54A

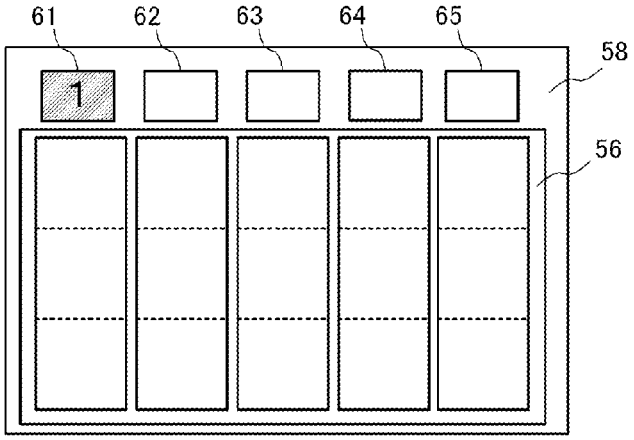


FIG. 54B

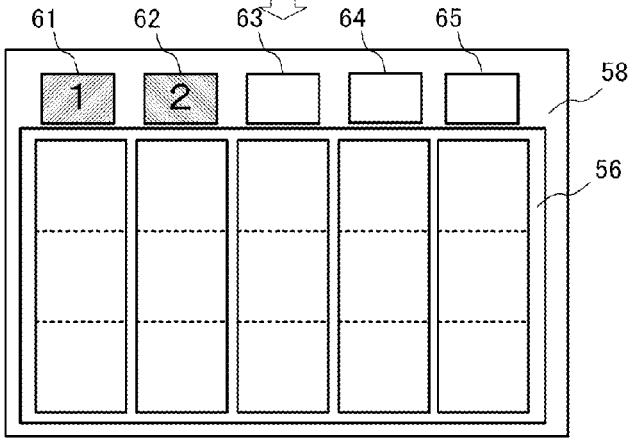


FIG. 54C

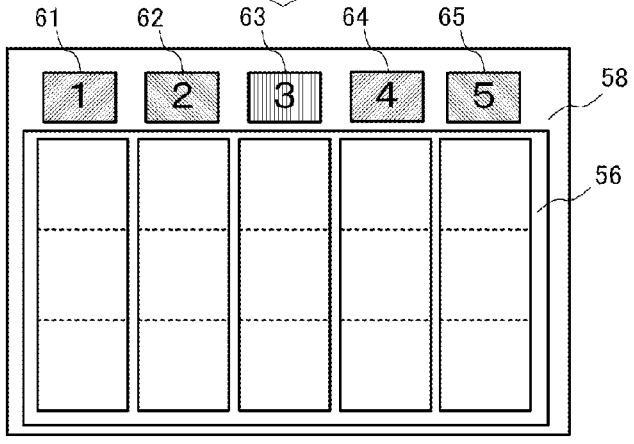


FIG. 55A

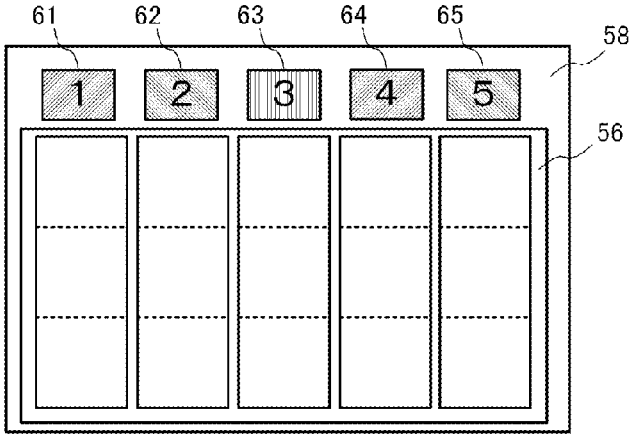


FIG. 55B

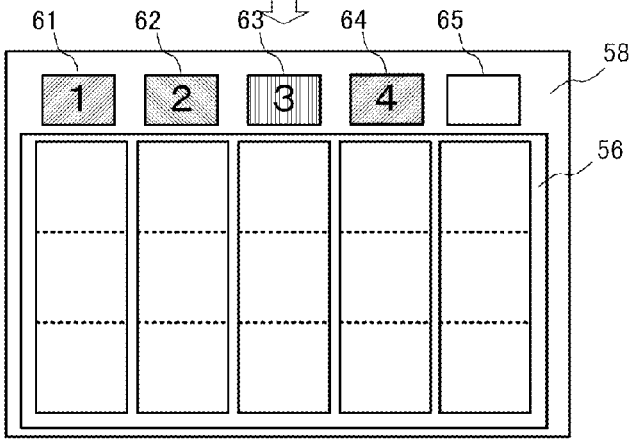
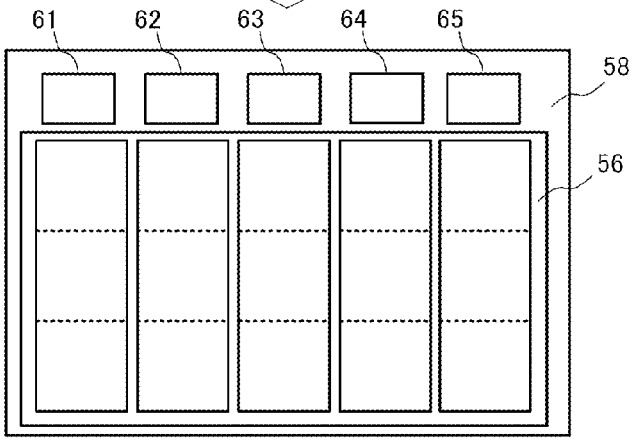


FIG. 55C



GAMING MACHINE

CROSS REFERENCE TO RELATED APPLICATIONS

This application is based on and claims a priority from the prior Japanese Patent Application No. 2013-194981 filed on Sep. 20, 2013, the entire contents of which are incorporated herein by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a gaming machine.

2. Background of the Related Art

Conventionally, there has been known a gaming machine in which when subsequent to the insertion of gaming media such as coins, a player presses a spin button, symbols to be displayed for the player upon stopping a plurality of reels are determined by lottery processing; scrolling of symbol arrays of the reels is started; the scrolling is stopped so as to display the determined symbols for the player and to rearrange the symbols; it is determined whether or not a combination of the displayed symbols is associated with a prize; and in a case where the combination of the displayed symbols is associated with the prize, a bonus according to a kind of the winning combination of the symbols is awarded to the player.

In such a gaming machine, upon winning a BB related to the activation of a bonus, a number of gaming media which can be paid out in a bonus game is determined and set (for example, refer to Japanese Unexamined Patent Application Publication No. 2007-20954). On this gaming machine, a player can play the bonus game until the set number of gaming media has been reached.

However, in such a gaming machine, after winning the BB related to the activation of the bonus, the game is merely played until the medals whose allowable number is determined have been paid out. Therefore, the player merely consumes the predetermined allowable number of medals and thus, game patterns are likely to be monotonous in the bonus game.

SUMMARY OF THE INVENTION

Accordingly, an object of the present invention is to provide a gaming machine capable of realizing game patterns differing from one another in a bonus game by changing probabilities, with each of which predetermined symbols are rearranged on a particular condition.

A first aspect of the present invention is directed to a gaming machine in which a payout is determined based on rearranged symbols includes:

a plurality of symbol display devices (for example, five reels **52**A, **52**B, **52**C, **52**D, and **52**E displayed in a display window **56** of a symbol display unit **40**);

a memory (for example, a ROM **224**) for storing a first symbol determination table (for example, one of the first to sixth symbol determination tables in the first embodiment) in which probabilities, with each of which predetermined symbols (for example, BONUS symbols) are rearranged in the display regions (for example, the display window **56**) of the display (for example, the symbol display unit **40**) on a particular condition (for example, a condition that three or more BONUS symbols are rearranged) in free games, are set so as to exceed a predetermined probability and a second symbol determination table (for example, one of the fifth to tenth symbol determination tables in the first embodiment) in which the probabilities, with each of which the predetermined symbols are rearranged in the display regions of the display on the particular condition in the free games, are set so as to be less than the predetermined probability; and

a controller (for example, a main CPU **222**, a main body PCB **240**, and the like) for controlling the plurality of symbol display devices and executing control to rearrange the plurality of symbols in the display regions of the display, the controller being programmed to execute processing (1-1) to (1-4) described below:

processing (1-1) in which in a basic game, symbols to be rearranged are determined by conducting a lottery;

processing (1-2) in which in the basic game, when the rearranged symbols (for example, the BONUS symbols) meet a predetermined condition (for example, a condition that three or more BONUS symbols are rearranged), a game state is shifted to the free games;

processing (1-3) in which in the free games, symbols to be rearranged are determined based on the first symbol determination table by conducting a lottery; and

processing (1-4) in which in the next free games subsequent to the game in which the predetermined symbols have been rearranged in the display regions on the particular condition, symbols to be rearranged are determined based on the second symbol determination table by conducting a lottery.

By employing the above-described configuration in the present invention, when in the free games, the symbols to be rearranged are determined based on the first symbol determination table and the predetermined symbols are rearranged on the particular condition, in the next games subsequent to the game in which the predetermined symbols are rearranged on said particular condition, the symbols to be rearranged are determined based on the second symbol determination table by conducting a lottery. Accordingly, in the free games, the predetermined symbols can be easily rearranged until it is first realized that the predetermined symbols are rearranged on the particular condition (retrigger), and after the retrigger has once been realized, it is made possible for the predetermined symbols to be less easily rearranged on the particular condition. Thus, a player can play the games while expecting that the retrigger is realized since the start of the free games. In addition, a player can play the games while further expecting, even after the retrigger has once been realized, that the retrigger is realized though the probabilities become low.

In a second aspect of the present invention, the controller in the first aspect is further programmed to execute processing (1-5) described below:

processing (1-5) in which in the free games, when the predetermined symbols are rearranged in the display regions on the particular condition, a predetermined number of free games (for example, five games) is added to a number of the free games.

By employing the above-described configuration in the present invention, in the free games, when the retrigger has been realized, the number of free games is increased by the predetermined number of free games. In addition, in the free games, the retrigger is easily realized until the retrigger is first realized, and the retrigger is less easily realized after the retrigger has once been realized. Thus, a player can play the games while expecting the increase in the number of free games with high probabilities. Further, after the retrigger once has been realized, a player can play the games while further expecting the addition of the number of free games through the probabilities become low.

In a third aspect of the present invention, the memory in the first aspect has stored therein a first symbol determination table group (for example, a symbol determination table first selection table in the first embodiment) having a plurality of symbol determination tables, in each of which in the free games, probabilities, with each of which the predetermined symbols are rearranged in the display regions of the display on the particular condition, are set so as to exceed the predetermined probability and a second symbol determination table group (for example, a symbol determination table second selection table in the first embodiment) having a plurality of symbol determination tables, in each of which in the free games, probabilities, with each of which the predetermined symbols are rearranged in the display regions of the display on the particular condition, are set so as to be less than the predetermined probability,

in the respective plurality of symbol determination tables which the first symbol determination table group and the second symbol determination table group have, the probabilities which are different from one another are set,

the processing (1-3) includes:

processing (1-3-1) in which in the free games, one symbol determination table (for example, one of the first to sixth symbol determination tables in the first embodiment) is selected from the first symbol determination table group for each game by conducting a lottery; and

processing (1-3-2) in which in the free games, symbols to be rearranged are determined based on the symbol determination table selected from the first symbol determination table group by conducting a lottery, and

the processing (1-4) includes:

processing (1-4-1) in which in the next and subsequent free games, one symbol determination table (for example, one of the fifth to tenth symbol determination tables in the first embodiment) is selected from the second symbol determination table group for each game by conducting a lottery; and

processing (1-4-2) in which in the next and subsequent free games, symbols to be rearranged are determined based on the symbol determination table selected from the second symbol determination table group by conducting a lottery.

By employing the above-described configuration in the present invention, each of the symbol determination tables is selected for each game by conducting a lottery. In addition, the probabilities are set such that the probabilities, with each of which the predetermined symbols are rearranged on the particular condition, are different from those in each of the symbol determination tables. Accordingly, even in a case where the predetermined symbols are easily rearranged or less easily rearranged on the particular condition, variations in said probabilities are increased, thereby allowing the games to be prevented from becoming monotonous.

In a fourth aspect of the present invention, the memory in the second aspect has stored therein a first symbol determination table group (for example, a symbol determination table first selection table in the first embodiment) having a plurality of symbol determination tables, in each of which in the free games, probabilities, with each of which the predetermined symbols are rearranged in the display regions of the display on the particular condition, exceed the predetermined probability and a second symbol determination table group (for example, a symbol determination table second selection table in the first embodiment) having a plurality of symbol determination tables, in each of which in the free games, probabilities, with each of which the predetermined symbols are rearranged in the display regions of the display on the particular condition, are less than the predetermined probability,

in the respective plurality of symbol determination tables which the first symbol determination table group and the second symbol determination table group have, the probabilities which are different from one another are set,

the processing (1-3) includes:

processing (1-3-1) in which in the free games, one symbol determination table (for example, one of the first to sixth symbol determination tables in the first embodiment) is selected from the first symbol determination table group for each game by conducting a lottery; and

processing (1-3-2) in which in the free games, symbols to be rearranged are determined based on the symbol determination table selected from the first symbol determination table group by conducting a lottery, and

the processing (1-4) includes:

processing (1-4-1) in which in the next and subsequent free games, one symbol determination table (for example, one of the fifth to tenth symbol determination tables in the first embodiment) is selected from the second symbol determination table group for each game by conducting a lottery; and

processing (1-4-2) in which in the next and subsequent free games, symbols to be rearranged are determined based on the symbol determination table selected from the second symbol determination table group by conducting a lottery.

By employing the above-described configuration in the present invention, in the free games, when the retrigger has been realized, the number of free games is increased by the predetermined number of free games. In addition, in the free games, the retrigger is easily realized until the retrigger is first realized, and the retrigger is less easily realized after the retrigger has once been realized. Thus, a player can play the games while expecting the increase in the number of free games with high probabilities. Further, after the retrigger once has been realized, a player can play the games while further expecting the addition of the number of free games through the probabilities become low.

In addition, each of the symbol determination tables is selected for each game by conducting a lottery, and the probabilities are set such that the probabilities, with each of which the predetermined symbols are rearranged on the particular condition, are different from those in each of the symbol determination tables. Accordingly, even in a case where the predetermined symbols are easily rearranged or less easily rearranged on the particular condition, variations in said probabilities are increased, thereby allowing the games to be prevented from becoming monotonous.

A gaming machine capable of realizing game patterns differing from one another in a bonus game is provided.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a chart showing an outline of a gaming machine;

FIG. **2** is a diagram showing a functional flow of operation in the gaming machine;

FIG. **3** is a view showing a game system including gaming machines;

FIG. **4** is a view showing an entire construction of each of the gaming machines;

FIG. **5** is a schematic diagram illustrating a layout of buttons of a control panel of the gaming machine;

FIG. **6** is an electric block diagram of the gaming machine;

FIG. **7** is a block diagram showing an electric circuit of a reel assembly;

FIG. **8** a block diagram showing processing of game programs executed by a main CPU of a motherboard;

FIG. **9** shows an example of a payline definition table defining paylines;

FIG. **10** shows an example of a symbol determination table for a basic game;

FIG. **11** shows an example of a payout table;

FIG. **12** is a diagram showing a pattern of state transition in the gaming machine;

FIG. **13** is a flowchart of main control processing in the gaming machine;

FIG. **14** is a flowchart of coin entry/start check processing in the gaming machine;

FIG. **15** is a flowchart of symbol lottery processing for the basic game in the gaming machine;

FIG. **16** is a flowchart of symbol display control processing in the gaming machine;

FIG. **17** is a flowchart of number-of-payout determination processing in the gaming machine;

FIG. **18** is a flowchart of feature game processing in the gaming machine;

FIG. **19** is a flowchart of symbol lottery processing for free games in the gaming machine;

FIGS. **20**A and **20**B show an example of a symbol determination table first and second selection table;

FIG. **21** shows an example of a first symbol determination table for the free games;

FIG. **22** shows an example of a second symbol determination table for the free games;

FIG. **23** shows an example of a third symbol determination table for the free games;

FIG. **24** shows an example of a fourth symbol determination table for the free games;

FIG. **25** shows an example of a fifth symbol determination table for the free games;

FIG. **26** shows an example of a sixth symbol determination table for the free games;

FIG. **27** shows an example of a seventh symbol determination table for the free games;

FIG. **28** shows an example of an eighth symbol determination table for the free games;

FIG. **29** shows an example of a ninth symbol determination table for the free games;

FIG. **30** shows an example of a tenth symbol determination table for the free games;

FIG. **31** shows an example of a symbol determination table for a basic game;

FIG. **32** shows an example of a payout table;

FIG. **33** is a diagram showing a pattern of state transition in a gaming machine;

FIG. **34** is a flowchart of feature game processing in the gaming machine;

FIG. **35** is a flowchart of symbol lottery processing for free games in the gaming machine;

FIGS. **36**A and **36**B show an example of a symbol determination table first and second selection table;

FIG. **37** shows an example of a first symbol determination table for the free games;

FIG. **38** shows an example of a second symbol determination table for the free games;

FIG. **39** shows an example of a third symbol determination table for the free games;

FIG. **40** shows an example of a fourth symbol determination table for the free games;

FIG. **41** shows an example of a fifth symbol determination table for the free games;

FIG. **42** shows an example of a sixth symbol determination table for the free games;

FIG. **43** shows an example of a seventh symbol determination table for the free games;

FIG. **44** shows an example of an eighth symbol determination table for the free games;

FIG. **45** shows an example of a ninth symbol determination table for the free games;

FIG. **46** shows an example of a symbol determination table for a basic game;

FIG. **47** shows an example of a payout table;

FIG. **48** is a diagram showing a pattern of state transition in a gaming machine;

FIG. **49** is a flowchart of feature game processing in the gaming machine;

FIG. **50** is a flowchart of symbol lottery processing for the free games in the gaming machine;

FIG. **51** shows an example of a symbol determination table selection table;

FIG. **52** shows an example of a first symbol determination table for free games;

FIG. **53** shows an example of a second symbol determination table for the free games;

FIGS. **54**A to **54**C are diagrams illustrating an example of effects; and

FIGS. **55**A to **55**C are diagrams illustrating an example of effects.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

Hereinafter, embodiments will be described with reference to the accompanying drawings.

<<<Outline of Gaming Machine According to Embodiments>>>

FIG. **1** is a chart showing an outline of a gaming machine according to each of the embodiments of the present invention.

The gaming machine according to each of the embodiments of the present invention determines symbols to be rearranged in a basic game by conducting a lottery (step S**1**). When the symbols rearranged in the basic game meet a predetermined condition (for example, a condition that three or more BONUS symbols are rearranged in a display window **56**), the gaming machine shifts the game to free games (step S**2**). Upon shifting to the free games, said gaming machine determines symbols to be rearranged by conducting a lottery based on a first symbol determination table in which probabilities with which predetermined symbols (for example, BONUS symbols) are rearranged are set so as to exceed a predetermined probability on a particular condition (for example, three or more BONUS symbols are rearranged in a display window **56**) (step S**3**). Said gaming machine determines symbols to be rearranged by conducting a lottery based on a second symbol determination table in which in the next free games subsequent to the free game in which the predetermined symbols have been rearranged on the particular condition, the probabilities with which the predetermined symbols are rearranged on the particular condition are set so as to be less than the predetermined probability (step S**4**). When the number of remaining free games becomes zero, the gaming machine reverts the game to the basic game (step S**5**). Said gaming machine repeatedly executes these steps S**1** to S**5**.

[Description of Functional Flowchart]

With reference to FIG. **2**, basic functions of the gaming machine according to each of the embodiments will be described. FIG. **2** is a diagram showing a functional flow of operation in the gaming machine according to each of the embodiments of the present invention.

<Coin Entry/Start Check>

First, the gaming machine checks whether or not any BET button has been pressed by a player and subsequently, checks whether or not a spin button has been pressed by a player.

<Determination of Symbols>

Next, when the spin button has been pressed by the player, the gaming machine extracts random number values for determination of symbols and determines symbols to be displayed for the player when scrolling of symbol arrays has been stopped, so as to correspond to each of a plurality of reels that are displayed on the display.

<Determination of Winning>

Next, the gaming machine determines whether or not a combination of the symbols displayed for the player is associated with any winning.

<Display of Symbols>

Next, the gaming machine starts scrolling of symbol arrays of each of the reels, stops the scrolling so as to rearrange symbols such that the determined symbols are displayed for the player.

<Payout>

Next, when a combination of the symbols displayed for the player is associated with any winning, the gaming machine awards a bonus to the player according to a kind of the combination of the symbols. For example, the gaming machine pays out to the player coins in number according to the combination of the symbols when a combination of symbols associated with paying-out of coins is displayed.

<Free Games>

In addition, in the gaming machine according to each of the embodiments, when a combination of symbols associated with a feature game trigger is displayed, the gaming machine shifts the game to the free games. It is to be noted that each of the free games is a game in which each lottery relevant to the above-mentioned determination of symbols and determination of BONUS symbol values is conducted over a predetermined number of times without consuming any coins. In the free games, the gaming machine extracts random number values for the determination of symbols and determines symbols to be rearranged. When the combination of symbols associated with the feature game trigger is displayed (retrigger), the gaming machine increases the number of free games. In the next free games subsequent thereto, the gaming machine switches the symbol determination table in which the retrigger less easily occurs.

In addition, the gaming machine can pay out coins of the amount of a jackpot to the player in a case where the player has won a predetermined level in a jackpot game. The jackpot refers to a function of accumulating a part of coins which are consumed by the player in the gaming machine as the amount of a jackpot and in a case where the player has won the predetermined level of a jackpot, paying out the number of payout according to the amount of a payout of that level. The gaming machine computes the amount which is accumulated as the amount of a jackpot (accumulated amount) each time one game is played and accumulates the amounts as the amount of a jackpot.

The jackpot may be of a standalone type such that a single gaming machine is employed and a part of coins consumed in the single gaming machine is accumulated as the amount of jackpot in that gaming machine, or alternatively, may be of a network type such that a jackpot is shared by connecting gaming machines to each other in a single gaming facility or in a plurality of gaming facilities, and the accumulated amount of jackpot is transmitted via an external control device.

In the network type, a part of coins consumed by a player in each gaming machine is transmitted as the amount of a jackpot to the external control device, and in the external control device, the received amount of a jackpot is accumulated and is shared by each gaming machine. In a case where a gaming machine has won the predetermined level of a jackpot, the amount of a jackpot is transmitted from the external control device to that gaming machine.

In addition, in the gaming machine, in addition to the bonus mentioned above, a bonus such as a mystery bonus may be provided. The mystery bonus is a bonus in which a predetermined amount of coins are paid out by winning in a dedicated lottery. When the spin button is pressed, the gaming machine extracts random number values for the mystery bonus and determines whether or not a mystery bonus trigger is established by conducting the lottery.

<<<Embodiments of Gaming Machine>>>

Hereinafter, in each of the embodiments of the present invention, as the gaming machine according to each of the embodiments of the present invention, a slot machine **10** will be described.

First Embodiment

Hereinafter, a first embodiment of the present invention will be described.

<<Game System>>

FIG. **3** is a view showing a game system including slot machines **10** in the first embodiment.

The game system **12** includes a plurality of slot machines **10** and an external control device **14**, which are connected via a communication line **16**.

The external control device **14** controls the plurality of slot machines **10**. In the embodiment, the external control device **14** is the so-called "hall server" which is installed in a gaming facility having the plurality of slot machines **10**. A unique identification number is assigned to each of the slot machines **10**, and by using the identification numbers, the external control device **14** identifies a source of data which is transmitted from each of the slot machines **10**. In addition, also when data is transmitted from the external control device **14** to each of the slot machines **1**, each of the identification numbers is used to designate a destination.

The game system **12** may be constructed in one gaming facility such as a casino in which a variety of games can be played or alternatively, may be constructed among a plurality of gaming facilities. In addition, in a case where the game system is constructed in one gaming facility, the game system **12** may be constructed in each floor or section of the gaming facility. The communication line **16** may be wired or wireless, and a leased line or a switchboard line or the like can be used.

<<Construction of Slot Machine **10**>>

FIG. **4** is a view showing an entire construction of the slot machine **10** according to the first embodiment of the present invention.

As gaming media which can be used in the slot machine **10**, coins, bills, or pieces of electronic information corresponding thereto are included. In addition, credits stored in a bar code ticket or an IC card can be also used as the gaming media used in the slot machine **10**. The gaming media are

not limited to the above-mentioned gaming media, and other kinds of media are also used in the same manner.

The slot machine **10** shown in FIG. **4** includes: a cabinet **20**; a top box **30** installed in the cabinet **20**; and a main door **22** provided on a front face of the cabinet **20**.

A symbol display unit **40** including a reel assembly **50** is provided at the main door **22**. In the present embodiment, the reel assembly **50** includes five reels **52**A, **52**B, **52**C, **52**D, and **52**E. Each of the reels **52**A, **52**B, **52**C, **52**D, and **52**E has a drum whose outer circumferential face has a plurality of kinds of symbols arranged thereon. The symbol display unit **40** is installed on a front part of the reel assembly **50** and has a display window **56**. A reel cover **54** is provided outside so as to allow a player to visually recognize a part of each of the reels **52**A, **52**B, **52**C, **52**D, and **52**E. The reel cover **54** is provided on a display panel **58**. It is preferable that as the reel cover **54**, a transparent liquid crystal panel is used. The symbol display unit **40** includes a touch panel **59** which detects a touch input made by a player.

In a state in which the reels **52**A, **52**B, **52**C, **52**D, and **52**E have stopped, three symbols among symbols assigned on each of the reels **52**A, **52**B, **52**C, **52**D, and **52**E appear in the display window **56**. Thus, a symbol matrix constituted of three rows and five columns is formed in the display window **56**. One or more lines are previously set as paylines for determining whether or not winning occurs. Each time a unit game is executed, the reels **52**A, **52**B, **52**C, **52**D, and **52**E to which symbols are assigned rotate at a predetermined speed, thereafter stop, and cause symbols to appear in the display window **56**, thereby rearranging the symbols. An outcome of the unit game is determined by the rearrangement of the symbols. A profit in accordance with an outcome of the unit game is awarded to a player. For example, when a predetermined winning combination is established along one payline by the rearranged symbols, a predetermined amount of a payout is awarded to a player. In addition, a game mode of the subsequent unit game is determined by the rearrangement of the symbols. As the game modes, there are a basic game mode and a free game mode, and the game modes will be described later in detail.

In the specification, the unit game refers to a game in a period from when processing of starting credits for starting a game is executed to when the symbol arrays have stopped, any symbols are rearranged in the display window **56**, and termination processing such as paying-out processing in accordance with an outcome of the game is executed. In a case of the free games, since it is not required for a player to perform a bet operation, the time at which credit processing inside of the slot machine **10** is conducted can be made as the time at which a game is started. In addition, in a case of a game other than the free games, the time at which a player performs the bet operation can be made as the time at which the game is started. In addition, processing in accordance with a outcome of a game, which is determined by rearranged symbols, can be made as the termination processing. For example, the time at which winning has occurred and processing of paying-out in accordance with the winning is executed can be made as the time at which the game is terminated.

In predetermined regions of the display panel **58**, an amount of bets and an amount of credits are displayed. The amount of credits indicates the number of coins which a player owns and has deposited inside of the slot machine **10**. The amount of payout indicates the number of coins awarded to a player when a winning combination is established.

In the first embodiment, in the slot machine **10**, mechanical reels **52**A, **52**B, **52**C, **52**D, and **52**E are used. Video reels or a combination of the mechanical reels and the video reels may be used.

An IC card reader **60** is provided in a lower part of the symbol display unit **40**. The IC card reader **60** receives an IC card. In the IC card, identification information of a player and predetermined data such as game log data pertinent to games played by a player before are stored. In addition, in the IC card, data corresponding to coins, bills, or credits owned by a player can also be stored. The IC card reader **60** performs reading and writing from and to an inserted IC card. It is preferable that the IC card reader **60** includes a liquid crystal display for displaying data read from an IC card.

In addition, as shown in FIG. **4** and FIG. **5**, below the reel assembly **50**, a variety of buttons disposed on a control panel **70** (input device), a coin entry **80** for receiving coins into the cabinet **20**, and a bill entry **82** are provided.

On the control panel **70**, a CHANGE button **71**, a CASHOUT/TAKE WIN button **72**, and a HELP button **73** are disposed in an upper part of a left region thereof, and a 1-BET button **74**, a 2-BET button **75**, a 3-BET button **76**, a 4-BET button **77**, a 5-BET button **78**, a play-2-LINE button **90**, a play-10-LINE button **91**, a play-20-LINE button **92**, a play-30-LINE button **93**, and a GAMBLE button **94** are disposed in a lower part of the left region thereof. In addition, the coin entry **80** and the bill entry **82** for receiving bills or the like are disposed in an upper part of a right region thereof and a MAX-BET button **85** and a spin button **86** are disposed in a lower part of the right region thereof.

The CHANGE button **71** is an operation button used upon temporarily leaving a seat and making a request of a staff in a gaming facility for exchange of money. The CASHOUT/TAKE WIN button **72** is an operation button used upon adjusting coins (credits) deposited inside of the slot machine **10**. The HELP button **73** is a button to be pressed in a case where a way of operating a game and the like are unclear. When the HELP button **73** is pressed, a variety of pieces of help information are displayed on a video display unit **110** and the reel assembly **50**.

Each time the 1-BET button **74** is pressed, one of credits currently owned by a player is bet on each activated payline on a one-by-one basis. The 2-BET button **75** is a button for starting a game with two bets on each activated payline. In addition, the 3-BET button **76** is a button for starting a game with three bets on each activated payline. In addition, the 4-BET button **77** is a button for starting a game with four bets on each activated payline. In addition, the 5-BET button **78** is a button for starting a game with five bets on each activated payline. In addition, the MAX-BET button **85** is a button for starting a game with 10 bets on each activated payline. Accordingly, by pressing any of the 1-BET button **74**, the 2-BET button **75**, the 3-BET button **76**, the 4-BET button **77**, the 5-BET button **78**, and the MAX-BET button **85**, the number of bets placed on each of the activated paylines is determined.

The play-2-LINE button **90** activates paylines when pressed, whereby the number of the activated paylines becomes "2". The play-10-LINE button **91** activates paylines when pressed, whereby the number of the activated paylines becomes "10". The play-20-LINE button **92** activates paylines when pressed, whereby the number of the activated paylines becomes "20". The play-30-LINE button **93** activates paylines when pressed, whereby the number of the activated paylines becomes "30".

The GAMBLE button **94** is an operation button used upon shifting to a gamble game after terminating a bonus game or the like. Here, the gamble game is a game played by using obtained credits.

The spin button **86** is used upon starting the scrolling of the mechanical reels **52**A, **52**B, **52**C, **52**D, and **52**E.

The coin entry **80** is to receive coins into the cabinet **20**. The bill entry **82** is to validate legitimacy of bills and receive legitimate bills into the cabinet **20**.

When coins are inserted into the coin entry **80**, the inserted coins are guided to a hopper in the cabinet **20**. When bills are inserted into the bill entry **82**, it is determined whether or not the inserted bills are legitimate and only legitimate bills are received into the cabinet **20**.

On a front face of a lower side of the main door **22** and below the control panel **70**, a lower glass **96** and a coin tray **98** are provided. On the lower glass **96**, a character of a slot machine and the like are depicted. To the coin tray **98**, coins are dispensed from the cabinet **20**.

As shown in FIG. **4**, the video display unit **110** having the liquid crystal panel is provided on a front face of the top box **30**. The video display unit **110** is to provide video effects for enhancing amusement of a game. In addition, in the video display unit **110**, information pertinent to rules and operations of a game is also displayed. A speaker **112** and a lamp **114** are provided on a side face and an upper face of the top box **30**, respectively. The slot machine **10** provides sound effects and effects presented by emitting light via the speaker **112** or the lamp **114**, thereby enhancing amusement of a game.

Below the video display unit **110**, a ticket printer **120**, a keypad **122**, and a data display **124** are provided.

The ticket printer **120** prints on a ticket a bar code including credit data, date and time, and an ID number of the slot machine **10** and discharges the printed ticket as a bar code ticket. A player can exchange the bar code ticket for bills and the like at a predetermined place of a gaming facility (for example, a cashier of a casino).

The keypad **122** has a plurality of keys. A player operates the plurality of keys, thereby allowing a variety of instructions related to the issuance of a bar code ticket to be inputted. On the data display **124** having a fluorescent display tube, an LED, and the like, data inputted from the keypad **122** by a player is displayed.

<<<Electric Configuration of Slot Machine>>>

FIG. **6** is an electric block diagram of the slot machine **10** shown in FIG. **4**. The slot machine **10** includes a game board **200**, a motherboard **220**, a door PCB **230**, and a main body PCB **240**.

The game board **200** includes: a CPU **202**; a ROM **204** which can be accessed from the CPU **202** via an internal bus; and a boot ROM **206** which can be accessed from the CPU **202** via the internal bus. The game board **200** includes: an IC socket **208** which is capable of housing a memory card **210** and communicating with the memory card **210**; and a card slot **212** which is provided in correspondence with a general-purpose array logic (GAL) **214**.

The memory card **210** includes a nonvolatile memory and has a game program and a game system program stored therein.

The IC socket **208** is configured such that the memory card **210** can be removably mounted thereon. The IC socket **208** is connected to the motherboard **220** by an IDE bus. A game executed by the slot machine **10** can be changed by replacing the memory card **210** with another card. In addition, a game executed by the gaming machine **10** can be changed by pulling out the memory card **210** from the IC socket **208**, writing another program into the memory card **210**, and reinserting the memory card **210** into the IC socket **208**.

The GAL **214** is a kind of a programmable logic device (PLD) having a fixed OR array architecture and has a plurality of input ports and output ports. Upon receiving predetermined data via each of the input ports, the GAL **214** outputs data corresponding to the inputted data via each of the output ports.

The card slot **212** is configured such that the GAL **214** can be inserted into the card slot **212** or can be removed from the card slot **212** and is connected to the motherboard **220** by a PCI bus.

The CPU **202**, the ROM **204**, and the boot ROM **206** which are interconnected by an internal bus are connected to the motherboard **220** by the PCI bus. The PCI bus enables transmission of a signal between the motherboard **220** and the game board **200**, and can supply power from the motherboard **220** to the game board **200**.

The ROM **204** stores programs. The boot ROM **206** stores a preliminary authentication program and boot codes or the like, which are used by the CPU **202**, for starting up the preliminary authentication program. The authentication program is a tampering check program for authenticating that the game program and the game system program are each authentic. The preliminary authentication program is a program for authenticating that the authentication program is authentic. Each of the authentication program and the preliminary authentication program is written by processing for authenticating that a targeted program is not tampered.

As the motherboard **220**, a generally available mainboard is used, and the motherboard **220** executes the game program and the game system program. The motherboard **220** includes a main CPU **222**, a ROM **224**, a RAM **226**, and a communication interface **228**.

The ROM **224** is a memory device for storing programs that are executed by the main CPU **222**, and as in a BIOS, the programs are permanently held together with other pieces of data. The ROM **224** may be a flash memory. The BIOS program initializes peripheral devices when the program is executed by the main CPU **222**. In addition, the BIOS program loads the game program and the game system program which are stored in the memory card **210**, via the game board **200**. The ROM **224** may be rewritable. Alternatively, a write-protected storage medium may be used as the ROM **224**.

The RAM **226** stores data and programs used during the operation of the main CPU **222**. For example, when the game program, the game system program, or the authentication program is loaded, such a program can be stored in the RAM **226**. The RAM **226** has a workspace for executing the programs. For example, in the workspace, the number of bets, the amount of payout, the amount of credits, or the like is stored and is held while a game is executed. Symbols, symbol codes, winning combinations, and a plurality of tables defining probabilities thereof are also held while a game is executed. Further, the RAM **226** stores a symbol code determination table. The symbol code determination table stores mapping information between the symbol codes and random numbers used to determine symbols based on the random numbers. In particular, the RAM **226** holds a mode flag as well as a game counter. The mode flag is a flag indicating a game mode. The game counter counts a value indicating the number of unit games that have already been executed or the number of remaining unit games.

In addition, the RAM **226** stores the count values of a plurality of counters. As the plurality of counters, a bet

counter, an amount-of-payout counter, an amount-of-credit counter, and a number-of-free-game counter for counting the number of unit games in the free games are included. In addition, some of the count values may be held in an internal register of the main CPU **222**.

The main CPU **222** communicates with an external controller via the communication interface **228**. For example, the external controller may be constituted of a server (not shown) or the like connected via a communication path.

The motherboard **220** is connected to the door PCB **230** and the main body PCB **240**. The motherboard **220** can communicate with the door PCB **230** and the main body PCB **240** via a USB. The motherboard **220** is connected to a power source **252**. The main CPU **222** of the motherboard **220** is started up and operated by using the power supplied from the power source **252**. The motherboard **220** supplies a part of the power to the game board **200** via the PCI bus in order to start up the CPU **202**. The door PCB **230** and the main body PCB **240** are connected to input devices. As the input devices, there are switches, sensors, peripheral devices, and the like, and operations thereof are controlled by the main CPU **222**. The door PCB **230** is connected to the control panel **70**, a coin counter **232**, a reverter **234**, and a cold cathode tube **236**.

The control panel **70** has a CHANGE switch **71**S, a CASHOUT/TAKE WIN switch **72**S, a HELP switch **73**S, a 1-BET switch **74**S, a 2-BET switch **75**S, a 3-BET switch **76**S, a 4-BET switch **77**S, a 5-BET switch **78**S, a MAX-BET switch **85**S, a spin switch **86**S, a play-2-LINE switch **90**S, a play-10-LINE switch **91**S, a play-20-LINE switch **92**S, a play-30-LINE switch **93**S, and a GAMBLE switch **94**S which are provided in correspondence with a variety of buttons **71** to **78**, **85**, **86**, and **90** to **94**, respectively. Each of the switches **71**S to **78**S, **85**S, **86**S, and **90**S to **94**S detects that each of the buttons **71** to **78**, **85**, **86**, and **90** to **94** is pressed by a player and outputs a signal to the main CPU **222**.

The coin counter **232** and the reverter **234** are provided in a coin entry **80**. The coin counter **232** determines whether or not a coin inserted into the coin entry **80** is authentic, based on features such as a material and a shape of the coin. In a case where an authentic coin is detected, the coin counter **232** outputs a signal to the main CPU **222**. A coin which is not determined to be authentic is ejected to the coin tray **98**. The reverter **234** operates based on a control signal from the main CPU **222**. The reverter **234** supplies the coin which is determined to be authentic by the coin counter **232** to either a hopper **242** or a cashbox (not shown). In a case where the hopper **242** is not filled with coins, such coins are guided to the hopper **242**. On the other hand, in a case where the hopper **242** is filled with coins, such coins are guided to the cashbox.

The cold cathode tube **236** is provided on a rear face of the video display unit **110**. The cold cathode tube **236** functions as a backlight or alternatively, performs illumination based on a control signal from the main CPU **222**.

The main body PCB **240** is connected to the speaker **112**, the lamp **114**, the hopper **242**, a coin detector **244**, the touch panel **59**, a bill validator **246**, the reel assembly **50**, the IC card reader **60**, a graphic board **250**, the ticket printer **120**, a key switch **122**S, or the data display **124**.

The lamp **114** turns ON or OFF based on a control signal from the main CPU **222**. The speaker **112** outputs a sound such as background music (BGM) based on a control signal from the main CPU **222**.

The hopper **242** operates based on a control signal from the main CPU **222** and pays out coins, whose amount of payout is specified, to the coin tray **98** via a coin payout exit (not shown) formed between the lower glass **96** and the coin tray **98**. The coin detector **244** detects the coins which are paid out from the hopper **242** and outputs a detection signal to the main CPU **222**.

The touch panel **59** detects a position touched by a player and supplies a position detection signal according to the detected position to the main CPU **222**. The bill validator **246** provided in the bill entry **82** supplies a bill detection signal corresponding to the amount of bill to the main CPU **222** when an authentic bill is detected.

The graphic board **250** controls the video display unit **110** and the display panel **58** of the symbol display unit **40** in accordance with a control signal from the main CPU **222**. The graphic board **250** includes: a video display processor (VDP) adapted to generate video data; and a video RAM adapted to temporality store video data. The video data is generated from the game program which is stored in the RAM **226**.

The IC card reader **60** reads out data which is stored in an IC card inserted into the IC socket **208** and supplies the read-out data to the main CPU **222**. The IC card reader **60** writes data supplied to the main CPU **222** to the IC card.

In order to output a barcode ticket, the ticket printer **120** prints, on the ticket, a barcode including the amount of credits stored in the RAM **226**, date and time, and an identification number of the gaming machine **10**, in accordance with a control signal from the main CPU **222**.

The key switch **122**S is provided on a back side of the keypad **122** and when the keypad **122** is pressed by a player, a key detection signal is outputted to the main CPU **222**.

The data display **124** displays information relevant to information inputted via the keypad **122**, in accordance with a control signal from the main CPU **222**.

<<Electric Circuit of Reel Assembly>>

FIG. **7** is a block diagram showing an electric circuit of the reel assembly.

As shown in FIG. **7**, the main body PCB **240** is electrically connected to the reel assembly **50**. As mentioned above, the reel assembly **50** includes the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E. Each of the reels **52**A, **52**B, **52**C, **52**D, and **52**E is provided on a reel circuit board **260**. The reel circuit board **260** includes: an input/output (I/O) unit **262** which can communicate with the main body PCB **240**; a reel driver **264** that is connected to the I/O unit **262**; a backlight driver **266**; and an effect illumination driver **268**.

The I/O unit **262** is connected to a magnetic field detector **270**. The magnetic field detector **270** includes: a magnetic sensor adapted to detect an intensity of a magnetic field and then output a magnetic detection signal which is proportional to the intensity of the magnetic field; and a sensor fixing part for fixing the magnetic sensor at a predetermined position. The magnetic sensor detects the intensity of the magnetic field which is generated by a magnet. The magnet is provided on a rotary shaft of a reel motor **272**, and rotates together with the reel **52**A.

The reel driver **264** supplies power to the reel motor **272**. The backlight driver **266** supplies individually power to respective light sources **282** of the backlight device **280**. The effect illumination driver **268** supplies individually power to respective light sources **292** of an effect illumination device **290**.

Each of the second to fifth reels **52**B to **52**E has the same configuration as that of the first reel **52**A and a detailed description thereof will be omitted.

<<Processing of Game Program>>

FIG. **8** is a block diagram showing processing of the game programs executed by the main CPU **222** of the motherboard **220**. When power is supplied to the slot machine **10**, the main CPU **222** reads the authenticated game program and game system program from the memory card **210** via the game board **200** and writes these programs into the RAM **226**. The game program is executed in a state in which the program is thus loaded into the RAM **226**.

According to the preferable embodiment, the game programs are executed by: an input/credit check processing part **300**; a random number generation processing part **302**; a symbol determination processing part **304**; a game counter processing part **306**; a reel control processing part **308**; a winning determination processing part **310**; an effect control processing part **312**; a payout processing part **314**; and a game mode determination processing part **316**.

It is to be noted that the input/credit check processing part **300** may be a single input/credit check processing device **300'**; the random number generation processing part **302** may be a single random number generation processing device **302'**; the symbol determination processing part **304** may be a single symbol determination processing **304'**; the game counter processing part **306** may be a single game counter processing device **306'**; the reel control processing part **308** may be a single reel control processing device **308'**; the winning determination processing part **310** may be a single winning determination processing device **310'**; the effect control processing part **312** may be a single effect control processing device **312'**; the payout processing part **314** may be a single payout processing device **314'**; and the game mode determination processing part **316** may be a single game mode determination processing device **316'**. As mentioned above, the game programs in the present embodiment can be executed by a set of the single devices. In addition, the game programs in the present embodiment can be executed by a device obtained by integrating some of the above-mentioned single devices. In any case, it is only required for such device or devices to be a module, a device, or a unit capable of executing the game programs in the present embodiment.

<Input/Credit Check Processing Part **300**>

The input/credit check processing part **300** continuously checks whether either any one of the 1-BET button **74** to 5-BET button **78**, the MAX-BET button **85**, or the spin button **86** is pressed in an idle state in which spinning of the reels **52**A, **52**B, **52**C, **52**D, and **52**E stops. In a case where either any one of the 1-BET button **74** to 5-BET button **78**, the MAX-BET button **85**, or the spin button **86** is pressed, the input/credit check processing part **300** checks whether or not any credit of a player remains based on credit data **320** which is stored in the RAM **226**. In a case where at least one credit of the player remains, the input/credit check processing part **300** invokes the random number generation processing part **302**.

Subsequently, the random number generation processing part **302** generates random numbers, and the symbol determination processing part **304** uses these random numbers. In the present embodiment, the random number generation processing part **302** generates five random numbers. Each of the five random numbers is used in each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E.

After all of the five random numbers have been extracted, the symbol determination processing part **304** determines to-be-stopped symbols of each of the reels **52**A, **52**B, **52**C, **52**D, and **52**E with reference to the symbol code determination table. The symbol determination processing part **304** determines five to-be-stopped symbols of the reels **52**A, **52**B, **52**C, **52**D, and **52**E and causes the to-be-stopped symbols to appear in the display window **56** of the symbol display unit **40** with respect to the respective reels **52**A, **52**B, **52**C, **52**D, and **52**E.

In particular, with reference to a mode flag **322** stored in the RAM **226**, the symbol determination processing part **304** checks the current game mode. Processing of determining symbols in the basic game is different from processing of determining symbols in the free games. In the basic game, the symbol determination processing part **304** determines symbols by using a given symbol code determination table in accordance with a given procedure with random numbers. On the other hand, in the free games, the symbol determination processing part **304** continuously changes a symbol code determination table with respect to each of the unit games and alters processing of determining symbols. By continuously changing the symbol code determination table, in accordance with the progress of the free games, the number of winning combinations including at least one specific symbol can be increased. The number of free games which can be executed in a single set of free games is limited to a predetermined number, for example, eight. In order to limit the number of free games, the game counter processing part **306** counts the number of free games which have already been executed in the single set of free games and the number of remaining free games in the single set of free games. Values in a number-of-free-game counter **324** are stored in the RAM **226**. The game counter processing part **306** may belong to the symbol determination processing part **304**.

The reel control processing part **308** controls the reel assembly **50** by supplying stop position information according to the determined symbols. Thus, the reels **52**A, **52**B, **52**C, **52**D, and **52**E are spun, and subsequently, the spun reels are stopped at positions which are specified according to the stop position information. In other words, the symbols scroll with the spinning of the reels **52**A, **52**B, **52**C, **52**D, and **52**E. Next, the reel control processing part **308** stops the reels **52**A, **52**B, **52**C, **52**D, and **52**E such that the determined symbols are rearranged at central positions in a vertical direction in the display window **56** of the symbol display unit **40**.

The winning determination processing part **310** determines whether or not a predetermined winning combination is established by the rearranged symbols. In a case where the winning combination is established by the rearranged symbols, the effect control processing part **312** controls the symbol display unit **40** and other devices. As the other devices, the speaker **112**, the lamp **114**, a video display unit **110**, and the like are included. As effects, effects by video and audio and effects by changes in the backlight and illumination are included. In addition, the payout processing part **314** determines the amount of payout in accordance with the established winning combination, and the amount of payout is awarded to a player.

In addition, each time a unit game is terminated, the game mode determination processing part **316** determines a game mode of a next unit game. In a case where a trigger event has occurred by the rearranged symbols, the game mode determination processing part **316** changes the game mode from the basic game mode to the free game mode. On the other hand, in a case where a termination condition has been met, the game mode determination processing part **316** changes the game mode from the free game mode to the basic game mode. In a case other than the above-mentioned cases the game mode determination processing part **316** maintains an

immediately preceding game mode. The processing by the game mode determination processing part **316** may be executed by the winning determination processing part **310**.

<Payline>

FIG. **9** shows an example of a payline definition table defining paylines employed in the gaming machine **10**. In the gaming machine **10**, five paylines are set for a symbol matrix. The payline definition table shows that any of the first to third rows each constitutes a payline with respect to the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E.

For example, this table shows that a payline "No. 1" is constituted of a second row of the first reel **52**A (first column), a second row of the second reel **52**B (second column), a second row of the third reel **52**C (third column), a second row of the fourth reel **52**D (fourth column), and a second row of the fifth reel **52**E (fifth column).

In addition, this table shows that a payline "No. 2" is constituted of a first row of the first reel **52**A (first column), a first row of the second reel **52**B (second column), a first row of the third reel **52**C (third column), a first row of the fourth reel **52**D (fourth column), and a first row of the fifth reel **52**E (fifth column).

In addition, this table shows that a payline "No. 3" is constituted of a third row of the first reel **52**A (first column), a third row of the second reel **52**B (second column), a third row of the third reel **52**C (third column), a third row of the fourth reel **52**D (fourth column), and a third row of the fifth reel **52**E (fifth column).

In addition, this table shows that a payline "No. 4" is constituted of a first row of the first reel **52**A (first column), a second row of the second reel **52**B (second column), a third row of the third reel **52**C (third column), a second row of the fourth reel **52**D (fourth column), and a first row of the fifth reel **52**E (fifth column).

In addition, this table shows that a payline "No. 5" is constituted of a third row of the first reel **52**A (first column), a second row of the second reel **52**B (second column), a first row of the third reel **52**C (third column), a second row of the fourth reel **52**D (fourth column), and a third row of the fifth reel **52**E (fifth column).

Each of the paylines can be activated in accordance with a player's selection. However, all of the 5 paylines can be activated, regardless of whatsoever the amount of bets or the player's selection may be. A total number of paylines can be changed in accordance with a size of the symbol matrix, and other paylines can be appropriately set.

<Symbol Determination Table for Basic Game>

FIG. **10** shows an example of a symbol determination table for the basic game in the first embodiment.

In this example, the symbol determination table for the basic game is shown as a table defining the symbols in the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E, symbol arrangement, and probabilities with which the respective symbols appear. The symbol determination table defines probabilities with which the symbols on each of the reels appear on a predetermined row of the symbol matrix (for example, a second row).

In this symbol determination table, weights appearing on the predetermined row are associated with the respective symbols of each of the reels, whereby the probabilities with which the symbols appear are defined. For example, with respect to a 2BAR symbol of a code number 00 on the first reel **52**A, the weight is set to "6", and the appearance probability is set to 6/284 (although the 284 in the lowest row is a total weight, said row is merely indicated for the sake of convenience and does not need to be included in the symbol determination table).

<Payout Table>

FIG. **11** shows an example of a payout table in the first embodiment.

The payout table briefly shows a relationship between winning combinations and the respective payouts. This table shows how much a corresponding payout is in a case where any combination of symbols is displayed on the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E on a defined payline. In this case, the symbols other than CHERRY symbols and BONUS symbols will be described. In a case where a part of a symbol combination may be any symbol, it is defined as (ANY). Although (ANY) symbols are set on the forth reel and the fifth reel for the sake of convenience, in the present embodiment, in a case where the (ANY) symbols are respectively displayed on the fourth reel and the fifth reel, it is denoted that any two symbols among the symbols on the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E may be arbitrary symbols, and in a case where an (ANY) symbol is displayed on only the fifth reel, it is denoted that any one symbol among the symbols on the first to fifth reels may be an arbitrary symbol.

In addition, in a case where "1BAR/2BAR/3BAR" symbols or the like are shown, it is indicated that when any one of these three symbols is displayed, a condition is met.

With respect to the CHERRY symbols and the BONUS symbols, it is not required for any combination of these symbols to be displayed on a payline, and when a predetermined number or more of these symbols are displayed in the display window **56**, each predetermined payout is awarded. In the payout table, payouts corresponding to the numbers of the CHERRY symbols or the BONUS symbols displayed in the display window **56** are shown.

In the gaming machine **10**, the winning determination processing part **310** refers to the payout table each time a unit game is executed and determines whether or not a winning combination is established on a payline or whether or not the predetermined number or more of winning symbols are displayed in the display window **56**. In a case where it is determined that a winning combination defined in the payout table is included on one of the paylines or the predetermined number or more of winning symbols are displayed in the display window **56**, the winning determination processing part **310** detects the winning combination or the winning symbols and with reference to the payout table, checks a payout.

The payout processing part **314** pays out the determined amount of a payout. On the other hand, in a case where it is determined that a winning combination is not established by the symbols that have appeared on a payline and that the predetermined number or more of winning symbols are not displayed in the display window **56**, the winning determination processing part **310** determines that a game outcome is the so-called "losing". The profit by the payout is awarded to a player by paying coins to the coin tray **92** or alternatively, adding credits equivalent to the amount of a payout.

<Game State Transition>

FIG. **12** is a diagram showing a pattern of state transition in the gaming machine **10**.

The gaming machine **10** executes two kinds of games: the basic game and the free games as a feature game. In the gaming machine **10**, the basic game is executed as a main game, and when in the basic game, a trigger (event) has occurred, the game shifts to the feature game.

In the first embodiment, a condition on which the trigger occurs is that in the display window **56** of the symbol display unit **40**, the BONUS symbols have been rearranged (three or more BONUS symbols have been rearranged) on a prede-

termined condition. Of course, other condition may be set as the condition on which the trigger occurs.

As can be understood from FIG. **12**, in the basic game, a unit game is repeated until the BONUS symbols have been rearranged in the display window **56** of the symbol display unit **40** on the predetermined condition. In this basic game, when a combination of the symbols rearranged on a payline matches any winning combination shown in the payout table, coins whose number is in accordance with a payout for that combination are paid out. In addition, when in the display window **56**, the predetermined number or more of the predetermined winning symbols have been rearranged, coins whose number is in accordance with a payout associated with the number of the rearranged winning symbols are paid out.

In the free games, a unit game similar to the unit game in the basic game is repeatedly executed without consuming any gaming media such as medals. When three or more BONUS symbols have been displayed, the number of free games is increased and when the number of remaining free games becomes "0" (that is, a value on the number-of-free-game counter **324** is zero), the game is terminated and the game reverts to the basic game.

In the first embodiment, the number of free games upon starting the free games is set to 10. In addition, in the free games, when in the display window **56** of the symbol display unit **40**, the three or more BONUS symbols have been rearranged, the number of free games to be further added is determined to be five, and the five free games are added to the number of free games remaining at that time.

[Contents of Programs]

Next, with reference to FIG. **13** to FIG. **17**, programs executed by the gaming machine **10** will be described.

<Main Control Processing>

First, with reference to FIG. **13**, main control processing will be described. FIG. **13** is a flowchart of the main control processing in the gaming machine **10** according to the first embodiment of the present invention.

First, when power is supplied to the gaming machine **10**, the main CPU **222** reads out the authenticated game program and game system program from the memory card **210** via the game board **200** and writes the read-out programs into the RAM **226** (step S**11**).

Next, the main CPU **222** conducts at-one-game-termination initialization processing (step S**12**). For example, data such as the number of BETs the symbols determined by conducting a lottery, which becomes unnecessary in the workspace of the RAM **226** each time one game is played, is cleared.

Next, the main CPU **222** conducts coin entry/start check processing to be described later with reference to FIG. **14** (step S**13**). In this processing, input check of any BET button and the spin button or the like is conducted.

Next, the main CPU **222** conducts symbol lottery processing for the basic game to be described later with reference to FIG. **15** (step S**14**). In this processing, determination of to-be-stopped symbols based on random number values for determination of symbols is conducted.

Next, the effect control processing part **312** operatively executed by the main CPU **222** conducts content-of-effect determination executing processing (step S**15**). The main CPU **222** extracts random number values for effects, determines any of a plurality of predetermined contents of effects by conducting a lottery, and executes the contents of effects at the timing of the determined contents of effects. For example, the main CPU **222** conducts control in such a manner that a video image for effects is displayed on the video display unit **110**, audio is outputted by the speaker **112**, the lamp **114** is lit, and effect processing is applied to these contents, etc.

Next, the main CPU **222** conducts symbol display control processing to be described later with reference to FIG. **16** (step S**16**). In this processing, scrolling of symbol arrays of each of the reels is started, to-be-stopped symbols determined in the symbol lottery processing for the basic game at step S**14** are stopped at their predetermined positions. In addition, light emission control for each of the reels is conducted based on the values of the BONUS symbols which are determined in the symbol lottery processing for the basic game at step S**14**.

Next, the main CPU **222** conducts number-of-payout determination processing to be described later with reference to FIG. **17** (step S**17**). In this processing, in the basic game, determination of the number of payout based on the payout table (FIG. **11**) is conducted according to a combination of symbols which are displayed on a payline, and the determined number of payout is stored in the number-of-payout storage region which is provided in the RAM **226** (the number-of-payout counter **321**).

Next, the main CPU **222** determines whether or not a feature game trigger is established (step S**18**). When the main CPU **222** determines that the feature game trigger is established (for example, the main CPU **222** determines that the feature game trigger is established in a case where the game mode is a feature game mode), the main CPU **222** conducts feature game processing to be described later with reference to FIG. **18** (step S**19**).

Next, after the processing at step S**19**, or at step S**18**, when the main CPU **222** determines that the feature game trigger is not established the main CPU **222** conducts payout processing (step S**20**). The main CPU **222** adds a value stored in the number-of-payout storage region (the number-of-payout counter **321**) to a value stored in the number-of-credit storage region provided in the RAM **226** (the number-of-credit counter **320**). One or more coins according to the number-of-payout counter **321** may be ejected from the coin payout opening by controlling the driving of the hopper **242**. In addition, a ticket having a barcode attached thereon in which the number-of-payout counter **321** is recorded may be issued by controlling the driving of the ticket printer **120**. After this processing has been conducted, the mode flag and the symbol value storage region or the like are cleared, and the game shifts to step S**12**.

<Coin Entry/Start Check Processing>

Next, with reference to FIG. **14**, coin entry/start check processing will be described. FIG. **14** is a flowchart of the coin entry/start check processing in the gaming machine **10** according to the first embodiment of the present invention.

First, with the use of the input/credit check processing part **300** operatively executed by the main CPU **222**, the main CPU **222** determines whether or not coin entry is detected by the coin counter **232** (step S**41**). When the main CPU **222** determines that the coin entry is detected, the main CPU **222** adds a value of the number of the entered coins to a value stored in the number-of-credit storage region (the number-of-credit counter **320**) (step S**42**). In addition to the coin entry, it is determined by the bill validator **246** whether or not bill entry is detected, and when it is determined that the bill entry is detected, a value corresponding to the bill may be added to the number-of-credit counter **320**.

After step S**42** or at step S**41**, when the main CPU **222** determines that the coin entry is not detected, the main CPU determines whether or not the number-of-credit counter **320** is set to 0 (step S**43**). When the main CPU **222** determines

that the number-of-credit counter **320** is not set to 0, the main CPU **222** permits acceptance of operation of any BET button (step S**44**).

Next, the main CPU **222** determines whether or not the operation of any BET button is detected (step S**45**). When the main CPU **222** detects that any BET button is pressed by a player with use of the BET switch, the main CPU **222** adds a value stored in the number-of-BET storage region which is provided in the RAM **226** (the number-of-BET counter **325**), based on a kind of the BET button, and subtracts on the number-of-credit counter **320** (step S**46**).

Next, the main CPU **222** determines whether or not a value on the number-of-BET counter **325** is a maximum (step S**47**). When the main CPU **222** determines that the value on the number-of-BET counter **325** is the maximum, the main CPU **222** disables updating of the number-of-BET counter **325** (step S**48**). When the main CPU **222** determines that the value on the number-of-BET counter **325** is not the maximum subsequent to step S**48** or in step S**47**, the main CPU **222** permits acceptance of operation of the spin button (step S**49**).

After step S**49** or at step S**45**, when the main CPU **222** determines that the operation of the BET button is not detected, or alternatively, at step S**43**, when the main CPU **222** determines the number-of-credit counter **320** is set to 0, the main CPU **222** determines whether or not operation of the spin button is detected (step S**50**). When the main CPU **222** determines that the operation of the spin button is detected, the game shifts to step S**41**.

When the main CPU **222** determines that the operation of the spin button is detected, the main CPU **222** finishes the coin entry/start check processing.

<Symbol Lottery Processing for Basic Game>

Next, with reference to FIG. **15**, symbol lottery processing for the basic game will be described. FIG. **15** is a flowchart of the symbol lottery processing for the basic game in the gaming machine **10** according to the first embodiment of the present invention.

First, the number-of-random generating processing part **302** operatively executed by the main CPU **222** extracts random number values for determination of symbols (step S**111**). Next, the symbol determination processing part **304** operatively executed by the main CPU **222** determines the to-be-stopped symbols of each of the reels by conducting a lottery (step S**112**). The main CPU **222** conducts the lottery with respect to each of the reels (first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E) and determines any of 22 symbols (code numbers "00" to "21") as the to-be-stopped symbols, based on the symbol determination table for the basic game (shown in FIG. **10** (FIG. **31** in the second embodiment and FIG. **46** in the third embodiment)). At this time, the probabilities with which any of the 22 symbols (code numbers "00" to "21") appear are determined in accordance with the weights in the symbol determination table.

Next, the main CPU **222** stores the determined to-be-stopped symbols of each of the reels in the symbol storage region that is provided in the RAM **226** (step S**113**). Next, the winning determination processing part **310** operatively executed by the main CPU **222** determines a winning combination based on a combination of the symbols which are stored in the symbol storage region with reference to the payout table (shown in FIG. **11** (FIG. **32** in the second embodiment and FIG. **47** in the third embodiment)) (step S**114**). The main CPU **222** determines whether or not a combination of the symbols displayed on a payline by each of the reels matches any combination of the symbols defined in the payout table or whether or not the predetermined number or more of predetermined winning symbols defined in the payout table have been rearranged in the display window **56** and determines a winning combination.

<Symbol Display Control Processing>

Next, with reference to FIG. **16**, symbol display control processing will be described. FIG. **16** is a flowchart of the symbol display control processing in the gaming machine **10** according to the first embodiment of the present invention.

First, the reel control processing part **308** operatively executed by the main CPU **222** transmits a spinning control signal to each of the reel assemblies (not shown), and the reel driver **264** of each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E supplies power to each of the reel motors **272** and then spins each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E. In response thereto, the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E respectively start spinning, and the symbol arrays assigned to the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E scroll in the display window **56** of the symbol display unit **40** (step S**131**).

Next, the reel control processing part **308** operatively executed by the main CPU **222** conducts reel stop control (step S**132**). The spinning control signal includes information relevant to a stop position of each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E, which is obtained from the to-be-stepped symbols in each of the reels stored in the symbol storage region. The reel driver **264** of each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E controls the reel motor **272** and stops each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E at the position which is indicated by the spinning control signal. In this manner, the reel motor **272** constituted of a stepping motor is stopped at a desired position, and scrolling of the symbol arrays is stopped such that the to-be-stopped symbols are located in the second row of the symbol matrix which is formed in the display window **56**. In the first embodiment, the reels are stopped in the order of the first reel **52**A, the second reel **52**B, the third reel **52**C, the fourth reel **52**D, and the fifth reel **52**E.

Lastly, the symbol display control processing is finished and the flow of execution reverts to the main processing.

<Number-of-Payout Determination Processing>

Next, with reference to FIG. **17**, number-of-payout determination processing will be described. FIG. **17** is a flowchart of the number-of-payout determination processing in the gaming machine **10** according to the first embodiment of the present invention.

With reference to the symbol storage region and the payout table (shown in FIG. **11** (FIG. **32** in the second embodiment and FIG. **47** in the third embodiment)), the number-of-payout is determined based on a payout corresponding to any winning combination in the basic game (step S**151**). For example, when on the paylines across the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E, SEVEN symbols are displayed on all of the reels, the winning combination is established as "SEVEN", and based on the corresponding payout "500" (refer to the payout table shown in FIG. **11**), the number of a payout is determined as "500". It is to be noted that when "Losing" is established, the number of a payout is determined as "0".

Subsequent to step S**151**, the payout processing part **314** operatively executed by the main CPU **222** stores the determined number of a payout in the number-of-payout counter **321** of the number-of-payout storage region (step S**152**). Upon having conducted this processing, the number-of-payout determination processing is finished.

<Feature Game Processing>

Next, with reference to FIG. **18**, feature game processing will be described. FIG. **18** is a flowchart of the feature game

processing in the gaming machine **10** according to the first embodiment of the present invention.

This processing is invoked in a case where it is determined that a feature game trigger is established in the main control processing shown in FIG. **13**. First, the effect control processing part **312** operatively executed by the main CPU **222** conducts control to display an effect video image on the video display unit **110** in order to conduct effects related to the start of a feature game (step S**171**).

Next, the game counter processing part **306** operatively executed by the main CPU **222** sets the number of free games as 10 to the value stored in the number-of-free-game storage region (the number-of-free-game counter **324**) (step S**172**). Subsequently, the game mode determination processing part **316** operatively executed by the main CPU **222** sets the game mode to the free game mode, and as described later, a unit game which is similar to that in the basic game is repeatedly conducted at 10 times (there is a case where the number of free games may be increased based on the later-described condition) according to the determined number of free games.

Next, the main CPU **222** conducts symbol lottery processing for the free games, later described with reference to FIG. **19** (step S**173**). In this processing, to-be-stopped symbols are determined based on the later-described first to tenth symbol determination tables for the free games and random number values for the determination of symbols.

Next, the effect control processing part **312** operatively executed by the main CPU **222** conducts content-of-effect determination executing processing (step S**174**). The main CPU **222** extracts effect random number values, determines any of a plurality of the predetermined contents of effects by conducting a lottery, and executes the contents of effects at the timing of the determined contents of effects. For example, an effect video image is displayed on the video display unit **110**, audio (such as background music (BGM)) is outputted by the speaker **112**, the lamp **114** is lit, and effect processing is applied to these elements, etc., thereby conducting control of a display mode or the like.

Next, the main CPU **222** conducts symbol display control processing which is similar to that in the main control processing shown in FIG. **16** (step S**175**). It is to be noted that the symbol display control processing at step S**175** can be conducted prior to or in parallel with the execution of the contents of effects at step S**174**. Next, the main CPU **222** conducts number-of-payout determination processing which is similar to that in the main control processing shown in FIG. **16** (step S**176**).

Subsequently, the game counter processing part **306** operatively executed by the main CPU **222** subtracts "1" from a value on the number-of-free-game counter **324** in response to the termination of one free game (step S**177**). The main CPU **222** determines whether or not the feature game trigger is established as a result of the symbol lottery processing for the free games at step S**173** (step S**178**), and if the feature game trigger is established (retrigger), the main CPU **222** turns on a retrigger flag stored in a predetermined region of the RAM **226** (step S**179**). Once this retrigger flag is turned on since the start of the free games, even if the retrigger is established again, the retrigger flag remains on until the value on the number-of-free-game counter **324** becomes zero and the free games are terminated. Thus, as in the later-described symbol lottery processing for the free games shown in FIG. **19**, the processing executed before establishing the first retrigger and the processing executed after establishing the first retrigger are different from each other. Next, the game counter processing part **306** operatively executed by the main CPU **222** adds five as the number of free games to be newly added by the retrigger to the value stored in the number-of-free-game region (number-of-free-game counter **324**) (step S**180**).

Next, the main CPU **222** determines whether or not the number-of-free-game counter **324** is set to 0 in a case where no feature game is established or in a case where the processing at step S**180** is finished (step S**181**). When the number-of-free-game counter **324** is not set to 0, the main CPU **222** shifts the processing to step S**173** in order to conduct a new free game. When the number-of-free-game counter **324** is set to 0, the main CPU **222** clears the retrigger flag (step S**182**) and finishes the feature game processing.

<Symbol Lottery Processing for Free Games>

Next, with reference to FIG. **19**, symbol lottery processing for the free games will be described. FIG. **19** is a flowchart of the symbol lottery processing for the free games in the gaming machine **10** according to the first embodiment of the present invention.

First, the main CPU **222** determines whether or not the retrigger flag is on (step S**191**). When the retrigger flag is off, that is, when the retrigger is not established, with reference to a symbol determination table first selection table (FIG. **20**A), the main CPU **222** selects one symbol determination table from among the first to sixth symbol determination tables for the free games (step S**192**). On the other hand, when the retrigger flag is on, that is, when the retrigger is established at one or more times, with reference to a symbol determination table second selection table (FIG. **20**B), the main CPU **222** one symbol determination table from among the fifth to tenth symbol determination tables for the free games (step S**193**).

In the symbol determination table first selection table shown in FIG. **20**A, weights corresponding to the seventh to tenth symbol determination tables for the free games among the first to tenth symbol determination tables for the free games are defined as zero. Accordingly, one symbol determination table is selected from among the first to sixth symbol determination tables for the free games. Here, in the first to sixth symbol determination tables for the free games (FIG. **21** to FIG. **26**), probabilities with which the respective symbols appear are set so as to allow the retrigger to be easily established. More specifically, a probability with which the three or more BONUS symbols are rearranged in the display window **56** is set to be high (higher than a predetermined probability). Thus, it is made possible for the retrigger to be easily established when the retrigger has not been established.

Therefore, a player can play the games while expecting the addition of the number of free games since the start of the free games.

On the other hand, in the symbol determination table second selection table shown in FIG. **20**B, weights corresponding to the first to fourth symbol determination tables for the free games among the first to tenth symbol determination tables for the free games are defined as zero. Accordingly, one symbol determination table is selected from among the fifth to tenth symbol determination tables for the free games. Here, in the seventh to tenth symbol determination tables (FIG. **27** to FIG. **30**) among the fifth to tenth symbol determination tables for the free games, probabilities with which the respective symbols appear are set so as to allow the retrigger to be less easily established. More specifically, a probability with which the three or more BONUS symbols are rearranged in the display window **56** is set to be low (lower than a predetermined probability). Thus,

it is made possible for the retrigger to be less easily established when the retrigger has once been established.

Therefore, the excessive addition of the free games for a player can be prevented. In addition, even after free games have once been added to the number of games, although the probability with which the retrigger is established is lowered, a player can play the games while further expecting the addition of the free games to the number of games.

Further, each of the first to tenth symbol determination tables for the free games is selected by conducting a lottery for each game. In addition, the probabilities, with which the three or more BONUS symbols are rearranged in the display window **56**, in the respectively selected symbol determination tables are set to be different from one another. Accordingly, in the case where the three or more BONUS symbols are easily rearranged in the display window **56** as well as in the case where the three or more BONUS symbols are less easily rearranged in the display window **56**, the variation of said probabilities is increased, thus allowing the games to be prevented from becoming monotonous.

Further, in the first and tenth symbol determination tables for the free games (FIG. **21** and FIG. **30**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 5" payline. In the second and seventh symbol determination tables for the free games (FIG. **22** and FIG. **27**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 1" payline. In the third and eighth symbol determination tables for the free games (FIG. **23** and FIG. **28**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 2" payline. In the fourth and ninth symbol determination tables for the free games (FIG. **24** and FIG. **29**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 3" payline. In the fifth symbol determination table for the free games (FIG. **25**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 4" and "No. 5" paylines. In the sixth symbol determination table for the free games (FIG. **26**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 4" payline. Thus, it is made possible to vary the paylines for each of the free games, on which the SEVEN symbols are easily rearranged.

Accordingly, in the free games, in accordance with the selected symbol determination table, the payline on which the SEVEN symbol combination is established is varied each time the game is played. Thus, diversity can be imparted to the patterns, in each of which the winning obtained by the SEVEN symbol combination is established.

Next, the random number generation processing part **302** operatively executed by the main CPU **222** extracts random number values for the determination of symbols (step S**194**). The symbol determination processing part **304** operatively executed by the main CPU **222** determines to-be-stopped symbols of each of the reels by conducting a lottery based on the random number values extracted at step S**194** (step S**195**). The main CPU **222** conducts the lottery with respect to each of the reels (the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E) and based on the one symbol determination table selected at step S**192** or step S**193** from among the first to tenth symbol determination tables for the free games (FIG. **21** to FIG. **30**), determines any of 22 symbols (code numbers "00" to "21") as the to-be-stopped symbols. At this time, the appearance probabilities of the 22 symbols (code numbers "00" to "21") are in accordance with the weights in each of the symbol determination tables.

Next, the main CPU **222** stores the to-be-stopped symbols of each of the reels in the symbol storage region provided in the RAM **226** (step S**196**). Next, with reference to the payout table (FIG. **11**), the winning determination processing part **310** executed by the main CPU **222** determines a winning combination based on a combination of the symbols stored in the symbol storage region (step S**197**). The main CPU **222** determines whether or not a combination of symbols displayed on a payline by each of the reels matches any symbol combination defined in the payout table or whether or not the predetermined number or more of the predetermined winning symbols defined in the payout table are rearranged in the display window **56**, thereby determining a winning combination.

In the first embodiment, although the number of free games which is set immediately after shifting to the free games is set to 10, the number thereof is not limited thereto and may be less than 10 or exceed 10. In addition, although the number of additional games to be added when the retrigger is established is five, the number thereof is not limited thereto and the number thereof may be less than five or exceed five.

In addition, in the first embodiment, although the condition on which the retrigger is established is that the three or more BONUS symbols are rearranged in the display window **56**, the condition is not limited thereto. The condition may be that any symbols other than the BONUS symbols are rearranged therein, or may be that, for example, four or more symbols are rearranged in the display window **56**.

Second Embodiment

Hereinbefore, the first embodiment is described. Hereinafter, a second embodiment will be described. It is to be noted that the description regarding parts of a configuration in common with those of the first embodiment is omitted and only parts of the configuration differing from those of the first embodiment will be described with reference to the accompanying drawings.

<Symbol Determination Table for Basic Game>

FIG. **31** shows an example of a symbol determination table for a basic game in the second embodiment. In said table, arrangement of symbols on each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E and values of corresponding weights are different from those in the first embodiment. However, a basic function thereof is the same as that of the symbol determination table for the basic game (FIG. **10**) in the first embodiment.

<Payout Table>

FIG. **32** shows an example of a payout table in the second embodiment. In said table, kinds of symbols are partly different from those in the first embodiment. However, a basic function thereof is the same as that of the payout table (FIG. **11**) in the first embodiment.

<Game State Transition>

FIG. **33** is a diagram showing a pattern of state transition in a gaming machine **10** in the second embodiment.

The gaming machine **10** executes two kinds of games: a basic game and free games as a feature game. In the gaming machine **10**, the basic game is executed as a main game, and when in the basic game, a trigger (event) has occurred, the game shifts to the feature game.

In the second embodiment, a condition on which the trigger occurs is that predetermined symbols have been rearranged on a payline defined in the payline definition

table (FIG. **9**) on a predetermined condition. This predetermined condition is that a combination of symbols rearranged on a payline is a combination of SEVEN symbols or BELL symbols. Of course, other condition may be set as the condition on which the trigger occurs.

As can be understood from FIG. **33**, in the basic game, a unit game is repeated until the predetermined symbols have been rearranged on a payline defined in the payline definition table (FIG. **9**) on the predetermined condition. In this basic game, when a combination of the symbols rearranged on a payline matches any winning combination shown in the payout table, coins whose number is in accordance with a payout for that combination are paid out. In addition, when in the display window **56**, the predetermined number or more of the predetermined winning symbols have been rearranged, coins whose number is in accordance with a payout associated with the number of the rearranged winning symbols are paid out.

In the free games, a unit game similar to the unit game in the basic game is repeatedly executed without consuming any gaming media such as medals. When a COIN symbol is rearranged in a region corresponding to the fourth reel **52**D or the fifth reel **52**E in the display window **56** (a particular condition is established), the game is terminated and the game reverts to the basic game.

In the second embodiment, upon starting the free games, the number of free games is not set. The free games are continued until the COIN symbol is rearranged in the region corresponding to the fourth reel **52**D or the fifth reel **52**E in the display window **56**. However, as described later, when the number of free games which have already been played is three or less, the COIN symbol is set so as not to be rearranged. Accordingly, a player can play at least three free games.

<Feature Game Processing>

Next, with reference to FIG. **34**, feature game processing will be described. FIG. **34** is a flowchart of the feature game processing in the gaming machine **10** according to the second embodiment of the present invention.

This processing is invoked in a case where it is determined that a feature game trigger is established in the main control processing shown in FIG. **13**. First, the effect control processing part **312** operatively executed by the main CPU **222** conducts control to display an effect video image on the video display unit **110** in order to conduct effects related to the start of a feature game (step S**211**).

Next, the game counter processing part **306** operatively executed by the main CPU **222** sets zero to a value stored in the number-of-free-game storage region (the number-of-free-game counter **324**) (step S**212**). In the second embodiment, the number-of-free-game counter **324** indicates the number of free games which a player has already played. Subsequently, the game mode determination processing part **316** operatively executed by the main CPU **222** sets the game mode to the free game mode, and as described later, a unit game which is similar to that in the basic game is repeatedly conducted until the COIN symbol is rearranged in the part corresponding to the fourth reel **52**D or the fifth reel **52**E in the display window **56**.

Next, the main CPU **222** conducts symbol lottery processing for the free games, later described with reference to FIG. **35** (step S**213**). In this processing, to-be-stopped symbols are determined based on the later-described first to ninth symbol determination tables for the free games and random number values for the determination of symbols.

Next, the effect control processing part **312** operatively executed by the main CPU **222** conducts content-of-effect determination executing processing (step S**214**). The specific processing which the main CPU **222** executes is the same as that in the first embodiment.

Next, the main CPU **222** conducts symbol display control processing which is similar to that in the main control processing shown in FIG. **16** (step S**215**). It is to be noted that the symbol display control processing at step S**215** can be conducted prior to or in parallel with the execution of the contents of effects at step S**214**. Next, the main CPU **222** conducts number-of-payout determination processing which is similar to that in the main control processing shown in FIG. **16** (step S**216**).

Next, the main CPU **222** determines whether or not a winning combination of the COIN symbols appears, that is, whether or not the COIN symbol is rearranged in the region corresponding to the fourth reel **52**D or the fifth reel **52**E in the display window **56** (step S**217**). When the winning combination of the COIN symbols does not appear, the main CPU **222** shifts the processing to step S**213** in order to conduct a new free game. When the winning combination of the COIN symbols appears, the main CPU **222** finishes the feature game processing.

<Symbol Lottery Processing for Free Games>

Next, with reference to FIG. **35**, symbol lottery processing for the free games will be described. FIG. **35** is a flowchart of the symbol lottery processing for the free games in the gaming machine **10** according to the second embodiment of the present invention.

First, the game counter processing part **306** operatively executed by the CPU **222** adds one to the number-of-free-game counter **324** (step S**231**). Next, the main CPU **222** determines whether or not a value on the number-of-free-game counter **324** is four or more (step S**232**). When a value on the number-of-free-game counter **324** is three or less, that is, when the number of free games which have already been played is three or less, with reference to a symbol determination table first selection table (FIG. **36**A), the main CPU **222** selects one symbol determination table from among the first to ninth symbol determination tables for the free games (step S**233**). On the other hand, when a value on the number-of-free-game counter **324** is four or more, that is, when the number of free games which have already been played is four or more, with reference to a symbol determination table second selection table (FIG. **36**B), the main CPU **222** selects one symbol determination table from among the first to ninth symbol determination tables for the free games (step S**234**).

Here, the first to ninth symbol determination tables for the free games (FIG. **37** to FIG. **45**) in the second embodiment will be described. In the first symbol determination table for the free games (FIG. **37**), appearance probabilities of the respective symbols are set such that the BELL symbols are easily rearranged on the "No. 1" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the BELL symbols are invariably rearranged on the "No. 1" payline. Therefore, a ready-to-win combination of the BELL symbols is invariably established.

In the second symbol determination table for the free games (FIG. **38**), appearance probabilities of the respective symbols are set such that the BELL symbols are easily rearranged on the "No. 4" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the BELL symbols are invariably rearranged on the "No. 4" payline. Therefore, a ready-to-win combination of the BELL symbols is invariably established.

In the third symbol determination table for the free games (FIG. **39**), appearance probabilities of the respective symbols are set such that the BELL symbols are easily rearranged on the "No. 5" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the BELL symbols are invariably rearranged on the "No. 5" payline. Therefore, a ready-to-win combination of the BELL symbols is invariably established.

In the fourth symbol determination table for the free games (FIG. **40**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 1" or "No. 5" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1" or "No. 5" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

In the fifth symbol determination table for the free games (FIG. **41**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 1" or "No. 4" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1" or "No. 4" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

In the sixth symbol determination table for the free games (FIG. **42**), appearance probabilities of the respective symbols are set such that the COIN symbol is likely to be rearranged in the region corresponding to the fourth reel **52**D in the display window **56** and the COIN symbol is likely to be rearranged in the region corresponding to the fifth reel **52**E in the display window **56**. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1", "No. 4", or "No. 5" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

In the seventh symbol determination table for the free games (FIG. **43**), appearance probabilities of the respective symbols are set such that the COIN symbol is likely to be rearranged in the region corresponding to the fourth reel **52**D in the display window **56** and the COIN symbol is likely to be rearranged in the region corresponding to the fifth reel **52**E in the display window **56**. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the BELL symbols are invariably rearranged on the "No. 1", "No. 4", or "No. 5" payline. Therefore, a ready-to-win combination of the BELL symbols is invariably established.

In the eighth symbol determination table for the free games (FIG. **44**), appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1", "No. 4", or "No. 5" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

In the ninth symbol determination table for the free games (FIG. **45**), appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the BELL symbols are invariably rearranged on the "No. 1", "No. 4", or "No. 5" payline. Therefore, a ready-to-win combination of the BELL symbols is invariably established.

As described above regarding the first to ninth symbol determination tables for the free games in the second embodiment, each payline on which the winning symbols are rearranged can be varied each time each of the free games is played. Thus, diversity can be imparted to patterns, in each of which the BELL or SEVEN winning combination is established. In addition, each payline on which the ready-to-win combination is established can be varied each time each of the free games is played. Thus, diversity can be imparted to patterns, in each of which the ready-to-win combination for the BELL or SEVEN winning combination is displayed. In addition, since the ready-to-win combination for the BELL or SEVEN winning combination is invariably established, a player can play the games while having a sense of expectation that the BELL or SEVEN winning combination could be established.

In the symbol determination table first selection table shown in FIG. **36**A, weights corresponding to the sixth, seventh, and ninth symbol determination tables for the free games among the first to ninth symbol determination tables for the free games are defined as zero. Accordingly, one symbol determination table is selected from among the first to fifth and eighth symbol determination tables for the free games. In addition, said symbol determination table first selection table is selected when the number of free games which have already been played is three or less. Therefore, when the number of free games which have already been played is three or less, there is no likelihood that the COIN symbol is rearranged in the region corresponding to each of the fourth reel **52**D and the fifth reel **52**E in the display window **56**. Therefore, it does not occur that the free games are terminated. Thus, a player can be provided with at least three free games.

On the other hand, in the symbol determination table second selection table shown in FIG. **36**B, weights corresponding to the sixth and ninth symbol determination tables for the free games among the first to ninth symbol determination tables for the free games are defined as zero. Accordingly, one symbol determination table is selected from among the first to fifth, seventh, and eighth symbol determination tables for the free games. In addition, said symbol determination table second selection table is selected when the number of free games which have already been played is four or more. Therefore, since when the number of free games which have already been played is four or more, the COIN symbol is likely to be rearranged in the region corresponding to the fourth reel **52**D in the display window **56** and the COIN symbol is likely to be rearranged in the region corresponding to the fifth reel **52**E in the display window **56**, there may be a case where the free games are terminated. Accordingly, a player can play the games while having a sense of expectation that the BELL or SEVEN winning combination could be established as well as a sense of tension that after the ready-to-win combination has been displayed, the COIN symbol would be rearranged and the free games could be thereby terminated. In addition, since the reels are stopped in the order from the first reel **52**A to the fifth reels **52**E, a player cannot recognize that the COIN symbol is rearranged and the free games are thereby terminated until either the fourth reel **52**D or the fifth reel **52**E is stopped. Thus, it is made possible to prevent a player from recognizing in an early stage while playing one of the free games that the free games are terminated.

During the free games, in all of the games, the sixth and the ninth symbol determination tables for the free games are

not selected. The reason for this is that with respect to the sixth symbol determination table for the free games (FIG. **42**), it is heartless to a player, who is expecting that the SEVEN winning combination leading to a large payout could be established, to terminate the free games by rearranging the COIN symbol when the ready-to-win combination of the SEVEN symbols has been established. In addition, another reason for this is that with respect to the ninth symbol determination table for the free games (FIG. **45**), said table has the same function as that of each of the first to third symbol determination tables for the free games (FIG. **37** to FIG. **39**). In other words, when each of the first to third symbol determination tables for the free games is selected, even after the ready-to-win combination of the BELL symbols is established, there is a case where the BELL winning combination is not established. However, the weights which the symbol determination table first and second selection table have are not limited to the above-described weights. For example, in the symbol determination table first selection table, the weight corresponding to the ninth symbol determination table for the free games may be defined as being larger than zero and the ninth symbol determination table for the free games may be thereby selected. In addition, in the symbol determination table second selection table, weights corresponding to the sixth and ninth symbol determination tables for the free games may be defined as being larger than zero and the sixth and ninth symbol determination tables for the free games may be thereby selected. In other words, when the number of free games which have already been played is four or more, the sixth symbol determination table for the free games may be likely to be selected and in all games of the free games, the ninth symbol determination table for the free games may be likely to be selected.

Next, the random number generation processing part **302** operatively executed by the main CPU **222** extracts random number values for the determination of symbols (step S**235**). The symbol determination processing part **304** operatively executed by the main CPU **222** determines to-be-stopped symbols of each of the reels by conducting a lottery based on the random number values extracted at step S**235** (step S**236**). The main CPU **222** conducts the lottery with respect to each of the reels (the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E) and determines any of 22 symbols (code numbers "00" to "21") as the to-be-stopped symbols based on one symbol determination table selected at step S**233** or step S**234** among the first to ninth symbol determination tables for the free games (FIG. **37** to FIG. **45**). At this time, appearance probabilities of the 22 symbols (code numbers "00" to "21") are defined in accordance with the weights in the symbol determination table.

Next, the main CPU **222** stores the to-be-stopped symbols of each of the reels in a symbol storage region provided in the RAM **226** (step S**237**). Next, with reference to the payout table (FIG. **32**), the winning determination processing part **310** operatively executed by the main CPU **222** determines a winning combination based on the combination of symbols stored in the symbol storage region (step S**238**). The main CPU **222** determines whether or not a combination of symbols on a payline displayed by each of the reels matches any combination of symbols defined in the payout table or whether or not a predetermined number or more of predetermined winning symbols defined in the payout table are rearranged in the display window **56**, thereby determining a winning combination.

In the second embodiment, when the COIN symbol is rearranged in the region corresponding to the fourth reel **52**D or the fifth reel **52**E in the display window **56**, the free games are terminated. When the number of free games which have already been played is four or more, the seventh symbol determination table for the free games in which the COIN symbol is rearranged is likely to be selected. However, the case where said table is selected is not limited to the case where the number of free games which have already been played is four or more, and the case where said table is selected may be a case where the number of free games which have already been played is n or more (n is a natural number excluding four).

Third Embodiment

Hereinbefore, the first and second embodiment are described. Hereinafter, a third embodiment will be described. It is to be noted that the description regarding parts of a configuration in common with those of the first and second embodiments is omitted and only parts of the configuration differing from those of the first and embodiments will be described with reference to the accompanying drawings.

<Symbol Determination Table for Basic Game>

FIG. **46** shows an example of a symbol determination table for a basic game in the third embodiment. In said table, arrangement of symbols on each of the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E and values of corresponding weights are different from those in the first embodiment. However, a basic function is the same as that of the symbol determination table for the basic game (FIG. **10**) in the first embodiment.

<Payout Table>

FIG. **47** shows an example of a payout table in the third embodiment. In said tables, kinds of symbols are partly different from those in the first embodiment. However, a basic function is the same as that of the payout table (FIG. **11**) in the first embodiment.

<Game State Transition>

FIG. **48** is a diagram showing a pattern of state transition in a gaming machine **10** in the third embodiment.

The gaming machine **10** executes two kinds of games: a basic game and free games as a feature game. In the gaming machine **10**, the basic game is executed as a main game, and when in the basic game, a trigger (event) has occurred, the game shifts to the feature game.

In the third embodiment, a condition on which the trigger occurs is that in the display window **56** of the symbol display unit **40**, SEVEN symbols have been rearranged (three or more SEVEN symbols have been rearranged) on a predetermined condition. Of course, other condition may be set as the condition on which the trigger occurs.

As can be understood from FIG. **48**, in the basic game, a unit game is repeated until the SEVEN symbols have been rearranged in the display window **56** of the symbol display unit **40** on the predetermined condition. In this basic game, when a combination of the symbols rearranged on a payline matches any winning combination shown in the payout table, coins whose number is in accordance with a payout for that combination are paid out. In addition, when in the display window **56**, the predetermined number or more of the predetermined winning symbols have been rearranged, coins whose number is in accordance with a payout associated with the number of the rearranged winning symbols are paid out.

In the free games, a unit game similar to the unit game in the basic game is repeatedly executed without consuming any gaming media such as medals. When the number of

remaining free games becomes "0" (that is, a value on the number-of-free-game counter **324** is zero), the game is terminated and the game reverts to the basic game.

In the third embodiment, the number of free games upon starting the free games is set to 5.

<Feature Game Processing>

Next, with reference to FIG. **49**, feature game processing will be described. FIG. **49** is a flowchart of the feature game processing in the gaming machine **10** according to the third embodiment of the present invention.

This processing is invoked in a case where it is determined that a feature game trigger is established in the main control processing shown in FIG. **13**. First, the effect control processing part **312** operatively executed by the main CPU **222** conducts control to display an effect video image on the video display unit **110** in order to conduct effects related to the start of a feature game (step S**251**).

Next, the game counter processing part **306** operatively executed by the main CPU **222** sets the number of free games as five to the value stored in the number-of-free-game storage region (the number-of-free-game counter **324**) (step S**252**). Subsequently, the game mode determination processing part **316** operatively executed by the main CPU **222** sets the game mode to the free game mode, and as described later, a unit game which is similar to that in the basic game is repeatedly conducted at five times.

Next, the main CPU **222** conducts symbol lottery processing for the free games, later described with reference to FIG. **50** (step S**253**). In this processing, to-be-stopped symbols are determined based on the later-described first and second symbol determination tables for the free games and random number values for the determination of symbols.

Next, the effect control processing part **312** operatively executed by the main CPU **222** conducts content-of-effect determination executing processing (step S**254**). The main CPU **222** extracts effect random number values, determines any of a plurality of the predetermined contents of effects by conducting a lottery, and executes the contents of effects at the timing of the determined contents of effects. For example, an effect video image is displayed on the video display unit **110**, audio (such as background music (BGM)) is outputted by the speaker **112**, the lamp **114** is lit, and effect processing is applied to these elements, etc., whereby control of a display mode or the like is conducted.

Next, the main CPU **222** conducts symbol display control processing which is similar to that in the main control processing shown in FIG. **16** (step S**255**). It is to be noted that the symbol display control processing at step S**255** can be conducted prior to or in parallel with the execution of the contents of effects at step S**254**. Next, the main CPU **222** conducts number-of-payout determination processing which is similar to that in the main control processing shown in FIG. **16** (step S**256**).

Subsequently, the game counter processing part **306** operatively executed by the main CPU **222** subtracts "1" from a value on the number-of-free-game counter **324** in response to the termination of one free game (step S**257**). The main CPU **222** determines whether or not the number-of-free-game counter **324** is set to 0 (step S**258**). When the value on the number-of-free-game counter **324** is not set to 0, the main CPU **222** shifts the processing to step S**253** in order to conduct a new free game. When the number-of-free-game counter **324** is set to 0, the main CPU **222** finishes the feature game processing.

<Symbol Lottery Processing for Free Games>

Next, with reference to FIG. **50**, symbol lottery processing for the free games will be described. FIG. **50** is a flowchart of the symbol lottery processing for the free games in the gaming machine **10** according to the third embodiment of the present invention.

First, with reference to a symbol determination table selection table (FIG. **51**), the main CPU **222** selects one symbol determination table from the first and second symbol determination tables for the free games (step S**271**).

According to the symbol determination table selection table shown in FIG. **51**, one symbol determination table is selected from the first and second symbol determination tables for the free games.

Here, in the first symbol determination table for the free games (FIG. **52**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 1" or "No. 5" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1" or "No. 5" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

In the second symbol determination table for the free games (FIG. **53**), appearance probabilities of the respective symbols are set such that the SEVEN symbols are easily rearranged on the "No. 1" or "No. 4" payline. Further, the appearance probabilities of the respective symbols are set such that when the first reel **52**A and the second reel **52**B are stopped, the SEVEN symbols are invariably rearranged on the "No. 1" or "No. 4" payline. Therefore, a ready-to-win combination of the SEVEN symbols is invariably established.

As described above regarding the first and second symbol determination tables for the free games in the third embodiment, a payline on which the SEVEN symbols are rearranged as the winning combination can be varied each time each of the free games is played. Thus, diversity can be imparted to patterns, in each of which the SEVEN winning combination is established. In addition, a payline on which the ready-to-win combination is established can be varied each time each of the free games is played. Thus, diversity can be imparted to patterns, in each of which the ready-to-win combination for the BELL or SEVEN winning combination is displayed. In addition, since the ready-to-win combination for the SEVEN winning combination is invariably established, a player can play the games while having a sense of expectation that the SEVEN winning combination could be established.

Next, the random number generation processing part **302** operatively executed by main CPU **222** extracts random number values for the determination of symbols (step S**272**). The symbol determination processing part **304** operatively executed by the main CPU **222** determines to-be-stopped symbols of each of the reels by conducting a lottery based on the random number values extracted at step S**272** (step S**273**). The main CPU **222** conducts the lottery with respect to each of the reels (the first to fifth reels **52**A, **52**B, **52**C, **52**D, and **52**E) and determines any of 22 symbols (code numbers "00" to "21") as the to-be-stopped symbols based on one symbol determination table selected at step S**271** from the first and second symbol determination tables for the free games (FIG. **52** and FIG. **53**). At this time, appearance probabilities of the 22 symbols (code numbers "00" to "21") are defined in accordance with the weights in the symbol determination table.

Next, the main CPU **222** stores the to-be-stopped symbols of each of the reels in a symbol storage region provided in the RAM **226** (step S**274**). Next, with reference to the payout

table (FIG. **47**), the winning determination processing part **310** operatively executed by the main CPU **222** determines a winning combination based on the combination of symbols stored in the symbol storage region (step S**275**). The main CPU **222** determines whether or not a combination of symbols on a payline displayed by each of the reels matches any combination of symbols defined in the payout table or whether or not a predetermined number or more of predetermined winning symbols defined in the payout table are rearranged in the display window **56**, thereby determining a winning combination.

<Effects in Free Games>

FIGS. **54**A to **54**C are diagrams illustrating effects executed when the feature game trigger is determined as being established in the third embodiment. In the effects, it is indicated that the number of free games as the feature game is five. In FIGS. **54**A to **54**C, display regions **61** to **65** are provided in an upper part of the display panel **58** provided on the periphery of the display window **56**. Five LEDs which are operable to emit light from an inside of the slot machine **10** are provided so as to be associated with these five display regions. In addition, on a front face of the display region **61**, a transparent sheet having "1" depicted thereon is provided. Similarly, on respective front faces of the display region **62**, the display region **63**, the display region **64**, and the display region **65**, transparent sheets having "2", "3", "4", and "5" depicted thereon respectively are provided. In addition, a color of each of the LEDs associated with the display regions **61** to **65** can be arbitrarily set. For example, blue is set for the display region **61**; red is set for the display region **62**; green is set for the display region **63**, blue is set for the display region **64**; and red is set for the display region **65**.

When the feature game trigger is determined as being established, first, the LED associated with the display region **61** emits blue light and the display region **61** is lit up, thereby allowing the numeric character "1" to be visible (FIG. **54**A). Next, the LED associated with the display region **62** emits red light and the display region **62** is lit up, thereby allowing the numeric character "2" to be visible (FIG. **54**B). The same processing as mentioned above is executed sequentially for the display regions **63** to **65**, and lastly, the LED associated with the display region **65** emits red light and the display region **65** is lit up, thereby allowing the numeric character "5" to be visible (FIG. **54**C). As described above, the display regions **61** to **65** are sequentially lit up, thereby allowing a player to recognize that the number of free games at the time point when the feature game trigger is established is five.

FIGS. **55**A to **55**C are diagrams illustrating effects conducted when the free games are executed in the third embodiment. In the effects, the number of remaining free games is notified. First, when the number of remaining free games is five, all of the display regions **61** to **65** are lit up (FIG. **55**A). Thereafter, when one game has already been played, the LED associated with the display region **65** is lit off, thereby notifying that the number of remaining games is four (FIG. **55**B). In accordance with the number of free games which have already been played, the LEDs associated with the display regions **64**, **63**, **62**, and **61** are sequentially lit off and lastly, all of the LEDs associated with the display regions **61** to **65** are lit off, thereby notifying that the number of free games is zero.

In the third embodiment, although the number of free games which is set immediately after shifting to the free games is set to 5, the number thereof is not limited thereto and may be less than 5 or exceed 5.

REFERENCE SIGNS LIST

52A, **52**B, **52**C, **52**D, **52**E reel
222 main CPU
224 ROM
226 RAM

What is claimed is:

1. A gaming machine in which a payout is determined based on rearranged symbols, comprising:

a symbol display device which is configured to display a plurality of symbols in display regions thereof in a scrolling manner and in a stopped manner;

a memory storing therein first and second free-game-symbol-determination tables according to which predetermined symbols will be displayed in the stopped manner during execution of free games; wherein the first and second free-game-symbol-determination tables define probabilities for each of the predetermined symbols to be displayed in the stopped manner; wherein the probabilities defined by the first free-game-symbol-determination table are set such that a first likelihood that the predetermined symbols will satisfy a predetermined free-game condition exceeds a predetermined-condition-occurrence probability; and wherein the probabilities defined by the second free-game-symbol-determination table are set such that a second likelihood that the predetermined symbols will satisfy the predetermined free-game condition is less than the first likelihood that the predetermined symbols will satisfy the predetermined condition; and

a controller which controls the symbol display device and which executes control to rearrange the plurality of symbols in the display regions, the controller being programmed to execute the following steps:

(a) conducting a basic-game lottery to determine symbols to be displayed in the stopped manner in a basic game; (b) causing the plurality of symbols to be displayed in the scrolling manner during execution of the basic game; and (c) causing to be displayed in the stopped manner the symbols that have been determined by the basic-game lottery to be displayed in the stopped manner;

(d) shifiting to a free game if the symbols that are displayed in the stopped manner during execution of the basic game satisfy a predetermined free-game-initiation condition;

(e) for each execution of the free game prior to occurrence of the predetermined free-game condition, conducting a free-game symbol-determination lottery to determine, in accordance with the first free-game-symbol-determination table, symbols to be displayed in the stopped manner in the free game; (f) causing the plurality of symbols to be displayed in the scrolling manner during execution of the free game; and (g) causing to be displayed in the stopped manner the symbols that have been determined by the free-game symbol-determination lottery, in accordance with the first free-game-symbol-determination table, to be displayed in the stopped manner; and

upon occurrence of the predetermined free-game condition during a given execution of the free game, (i) conducting the free-game-symbol-determination lottery to determine, in accordance with the second

free-game-symbol-determination table, symbols to be displayed in the stopped manner in each subsequent execution of the free game and (j) adding a predetermined number of free games to be executed to a number of free games remaining to be executed; (k) causing the plurality of symbols to be displayed in the scrolling manner during execution of the free game; and (g) causing to be displayed in the stopped manner the symbols that have been determined by the free-game-symbol-determination lottery, in accordance with the second free-game-symbol-determination table, to be displayed in the stopped manner.

2. The gaming machine according to claim **1**, wherein the memory has stored therein first and second free-game-symbol-determination-table groups each comprising a plurality of free-game-symbol-determination tables according to which the predetermined symbols will be displayed in the stopped manner during execution of free games, with the free-game-symbol-determination tables within the two groups each defining probabilities for each of the predetermined symbols to be displayed in the stopped manner;

wherein the probabilities defined by the free-game-symbol-determination tables within the first group are set such that a first set of likelihoods that the predetermined symbols will satisfy a predetermined free-game condition each exceed a predetermined-condition-occurrence probability; and wherein the probabilities defined by the free-game-symbol-determination tables within the second group are set such that a second set of likelihoods that the predetermined symbols will satisfy the predetermined free-game condition are all less than the likelihoods associated with the first group that the predetermined symbols will satisfy the predetermined condition;

wherein the step (e) includes (e1) selecting, for each execution of the free game prior to occurrence of the predetermined free-game condition, a free-game-symbol-determination-table from the first group by conducting a table-selection lottery; and (e2) determining symbols to be displayed in the stopped manner in the free game by conducting the free-game-symbol-determination lottery in accordance with the free-game-symbol-determination table selected in step (e1) via the table-selection lottery; and

wherein the step (i) includes (i1) selecting, for each execution of the free game subsequent to occurrence of the predetermined free-game condition, a free-game-symbol-determination-table from the second group by conducting a table-selection lottery; and (i2) determining symbols to be displayed in the stopped manner in the free game by conducting the free-game-symbol-determination lottery in accordance with the free-game-symbol-determination table selected in step (i1) via the table-selection lottery.

3. A gaming machine in which a payout is determined based on rearranged symbols, comprising:

a symbol display device which is configured to display a plurality of symbols in display regions thereof in a scrolling manner and in a stopped manner;

a memory storing therein first and second pluralities of free-game-symbol-determination tables according to which predetermined symbols will be displayed in the stopped manner during execution of free games; wherein each of the free-game-symbol-determination tables within said first and second pluralities of tables defines probabilities for each of the predetermined symbols to be displayed in the stopped manner; wherein the probabilities defined by the free-game-symbol-determination tables within said first plurality of tables are set such that a first likelihood that the predetermined symbols will satisfy a predetermined free-game condition exceeds a predetermined-condition-occurrence probability; and wherein the probabilities defined by the free-game-symbol-determination tables within said second plurality of tables are set such that a second likelihood that the predetermined symbols will satisfy the predetermined free-game condition is less than the first likelihood that the predetermined symbols will satisfy the predetermined condition; and

a controller which controls the symbol display device and which executes control to rearrange the plurality of symbols in the display regions, the controller being programmed to execute the following steps:

(a) conducting a basic-game lottery to determine symbols to be displayed in the stopped manner in a basic game; (b) causing the plurality of symbols to be displayed in the scrolling manner during execution of the basic game; and (c) causing to be displayed in the stopped manner the symbols that have been determined by the basic-game lottery to be displayed in the stopped manner;

(d) shifting to a free game if the symbols that are displayed in the stopped manner during execution of the basic game satisfy a predetermined free-game-initiation condition;

(e) for each execution of the free game, conducting a free-game symbol-determination lottery to determine, in accordance with any one of the first and second pluralities of free-game-symbol-determination tables, symbols to be displayed in the stopped manner in the free game; (**0** causing the plurality of symbols to be displayed in the scrolling manner during execution of the free game; and (g) causing to be displayed in the stopped manner the symbols that have been determined by the free-game symbol-determination lottery; and

(h) upon occurrence of the predetermined free-game condition during a given execution of the free game, adding a predetermined number of free games to be executed to a number of free games remaining to be executed;

wherein for each execution of a free game until the predetermined free-game condition occurs, a free-game-symbol-determination table is selected for use in the free-game symbol-determination lottery of step (e) by means of a first table-selection lottery configured such that the respective probabilities associated with each of the first plurality of free-game-symbol-determination tables being the selected table exceed a predetermined probability; and

wherein for each execution of a free game subsequent to the predetermined free-game condition occurring, a free-game-symbol-determination table is selected for use in the free-game symbol-determination lottery of step (e) by means of a second table-selection lottery configured such that the respective probabilities associated with each of the first plurality of free-game-symbol-determination tables being the selected table are less than the predetermined probability.

4. The gaming machine according to claim **3**, wherein the first table-selection lottery is configured such that for each

execution of a free game until the predetermined free-game condition occurs, the table that is selected for use in the free-game symbol-determination lottery of step (e) invariably is one of the first plurality of free-game-symbol-determination tables.

5. The gaming machine according to claim **3**, wherein the second table-selection lottery is configured such that for each execution of a free game subsequent to the predetermined free-game condition occurring, the respective probabilities associated with each of the second plurality of free-game-symbol-determination tables being selected for use in the free-game symbol-determination lottery of step (e) are all higher than the respective probabilities associated with each of the first plurality of free-game-symbol-determination tables being selected for use in the free-game symbol-determination lottery of step (e), whereby it is more likely that the free-game-symbol-determination table that is selected for use in the free-game symbol-determination lottery of step (e) will be one of the second plurality of free-game-symbol-determination tables than it is that the free-game-symbol-determination table that is selected for use in the free-game symbol-determination lottery of step (e) will be one of the first plurality of free-game-symbol-determination tables.

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